

SDMS Doc ID 2000768



REPORT ON ANNUAL GROUNDWATER MONITORING, 2002 SANTA SUSANA FIELD LABORATORY VENTURA COUNTY, CALIFORNIA REPORT ON
ANNUAL GROUNDWATER MONITORING, 2002
SANTA SUSANA FIELD LABORATORY
VENTURA COUNTY, CALIFORNIA

by

Haley & Aldrich, Inc. Tucson, Arizona

for

The Boeing Company Canoga Park, California

File No. 32600/05/10/M431 February 28, 2003



UNDERGROUND ENGINEERING & ENVIRONMENTAL SOLUTIONS

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28 February 2003 File No. 32600/05/10/M431

Mr. David Chung, P.E. The Boeing Company Rocketdyne Propulsion & Power 6633 Canoga Avenue MC-T/487 Canoga Park, California 91303

Subject:

Report on Annual Groundwater Monitoring, 2002

Santa Susana Field Laboratory Ventura County, California

Dear Mr. Chung:

Enclosed is our annual report, Report on Annual Groundwater Monitoring, 2002, Santa Susana Field Laboratory, Ventura County, California. This report summarizes groundwater monitoring activities, including water level measurement and groundwater sampling conducted during the period of 1 January through 31 December 2002. We appreciate the opportunity to work with the Boeing Company on this project. Please advise if you have any questions or wish further discussion of this report.

Sincerely yours,

HALEY & ALDRICH, INC.

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I. INTRODUCTION

This report summarizes the groundwater monitoring and groundwater extraction/treatment activities conducted during 2002 at The Boeing Company, Rocketdyne Propulsion & Power Santa Susana Field Laboratory (SSFL) located in Ventura County, California (Figure 1). This report is intended to fulfill the requirements of multiple regulatory programs at SSFL, which are addressed in the Post-Closure Permits prepared by the California Department of Toxic Substances Control (DTSC), and the Leaking Underground Fuel Tank (LUFT) monitoring program overseen by DTSC. Specific requirements include performance of detection monitoring, evaluation monitoring and interim corrective action monitoring as described in the Facility Post-Closure Permits, and per the requirements of Title 22, Article 6, Sections 66264.97 through 66264.99.

Monitoring activities conducted during the year included:

- o measurement of static water levels;
- o collection and laboratory analysis of groundwater samples;
- o measurement of groundwater extraction/treatment system water levels, pumping rates and volumes; and
- o collection and laboratory analysis of water samples from treatment system influent and effluent.

Historic data through the year 1999 were reported in the Annual Groundwater Monitoring Report, Santa Susana Field Laboratory, 1999, Boeing North American, Inc., Rocketdyne Propulsion & Power, Ventura County, California (Groundwater Resources Consultants, Inc. (GWRC), February 28, 2000). Monitoring results for the years 2000 and 2001 were reported in the Report on Annual Groundwater Monitoring, 2000, Santa Susana Field Laboratory, Ventura County, California (Haley & Aldrich, Inc., 2001), Report on Annual Groundwater Monitoring, 2001, Santa Susana Field Laboratory, Ventura County, California (Haley & Aldrich, Inc., 2002a), and Report on Appendix IX Groundwater Monitoring, 2001, Santa Susana Field Laboratory, Ventura County, California (Haley & Aldrich, Inc., 2002b). Monitoring results for the first three quarters of 2002 are presented in this report and were also presented in quarterly monitoring reports (Haley & Aldrich, Inc., 2002c, 2002d, and 2002e).

This annual report includes the following data obtained during 2002:

- O A tabular summary of water level measurements;
- O Discussion of the rates and direction of groundwater movement;
- O A tabular summary of laboratory analyses of water samples;
- O A tabular summary of groundwater extraction volumes and extraction well water levels and flow rates;
- O A tabular summary of laboratory analyses of permitted treatment system influent and effluent water samples;
- Water level hydrographs;
- O A groundwater elevation contour map of the Chatsworth Formation water table surface for November 2002;
- O Contaminant concentration posting maps for the year 2002; and
- O Contaminant concentration versus time plots from 1992 through 2002.



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Additional groundwater data were collected by Montgomery Watson Harza in 2002 as part of the Near-Surface Groundwater Investigation (NSGI), the investigation of seeps and springs, and the Chatsworth Formation Operable Unit Investigation (CFOU). These data have been, or will be, reported under separate cover and are not presented in this report.

1.01 Report Organization

Groundwater monitoring results, including analytical results and hydraulic head conditions, are presented in Section 2. Data for remedial systems are presented in Section 3.

II. GROUNDWATER MONITORING

This section presents a discussion of analytical results from 2002 groundwater sampling events conducted at SSFL. Monitoring wells, located as shown in Figure 2, were sampled quarterly, semi-annually, or annually in accordance with the current Sampling Analysis Plan (SAP) for the Facility (GWRC, 1995a, 1995b).

Additional subsurface investigation programs were conducted at SSFL during 2002. As a result of these ongoing investigations, additional information on site geology and groundwater conditions is becoming available. To the extent possible, this new information is incorporated in this report.

Information on groundwater conditions at SSFL is discussed below. Site geology and groundwater units are summarized and illustrated on Figures 3 and 4. Recently collected data in the eastern portion of SSFL indicate the presence of several geologic features that impact groundwater flow. The groundwater conditions depicted in this report are subject to change as additional data become available. Groundwater elevation contours for the first encountered water in the Chatsworth Formation, as determined from groundwater level measurements collected during the fourth quarter 2002 sampling event, are shown on Figure 5. Multi-port FLUTe sampling devices were installed in existing wells in the Former Sodium Disposal Facility (FSDF) and in the northeast corner of SSFL over the last two years. The elevation of first water in the multi-port devices varies from that previously observed in the open well bores. Accordingly, the actual elevation of first encountered groundwater probably differs from that shown in Figure 5.

Historic precipitation, year 2002 water level measurements, and historic water level hydrographs for select wells are presented in Tables 1 and 2 and Appendix A, respectively. Hydrographs representing vertical profiles of 2002 water levels in wells installed with FLUTe systems were prepared by Montgomery Watson Harza (MWH) and are presented in Appendix A. Well construction details are summarized in Appendix C. FLUTe system construction details are presented in Appendix A.

Groundwater quality results and trends, as presented in Tables 3 through 12, Appendices E and F, and Figures 6 through 20, are discussed in Section 2.02.

2.01 Groundwater Elevations and Flow Conditions

Groundwater occurs at SSFL in the alluvium, weathered bedrock, and unweathered bedrock (GWRC, 1987; Montgomery Watson, 2000a). First-encountered groundwater exists under water table conditions and may be encountered in any of these media. For the purposes of this report, near-surface groundwater is defined as groundwater that is present in the alluvium and weathered bedrock, and groundwater that occurs below the weathered bedrock is referred to as Chatsworth Formation groundwater.

Near-surface groundwater has a limited areal extent at SSFL, typically occurring in narrow alluvial drainages (topographic lows) and broad alluvial valleys (e.g., Burro Flats in Area



IV). Where near-surface groundwater exists, the near-surface and Chatsworth Formation groundwater are often times vertically continuous (i.e., not separated by a vadose zone). In this case, the separation of near-surface groundwater and Chatsworth Formation groundwater is a descriptive term only.

Based on data collected to date, perched groundwater may exist at a few locations within SSFL. At these locations, a vadose zone within the Chatsworth Formation may separate near-surface and Chatsworth Formation groundwater. Groundwater data collection and analysis is continuing and interpretations of existing hydrogeologic conditions will be modified as necessary based on the data collected.

A. Near-Surface Groundwater

The near-surface groundwater occurs in a thin layer of Quaternary alluvium distributed primarily in the Burro Flats area and along ephemeral drainages and the upper weathered portion of the Chatsworth Formation. The alluvium consists of unconsolidated sand, silt, and clay materials that have been eroded primarily from the surrounding Chatsworth and Martinez Formations.

The occurrence of near-surface groundwater is discontinuous at the Facility. Near-surface groundwater is present along ephemeral drainages and in the southern part of Burro Flats. Some portions of the alluvium and upper weathered Chatsworth Formation are saturated only during and immediately following the wet season.

Water level measurements were obtained quarterly from all 92 shallow groundwater wells during 2002 (Table 2, Appendix A). Near-surface groundwater levels during 2002 decreased overall from the first quarter to the fourth quarter. This decreasing trend is not indicative of the normal rainfall pattern in the area. For the 2002 water year, 5.70 inches of precipitation was measured, approximately 68% below average (Table 1). Water level elevations in the near-surface groundwater are generally highest during the late winter and spring rainy season and lowest during the summer and early fall dry months. Discharge of surface water to Facility storage reservoirs and channels as part of site operations also affects groundwater levels in the shallow wells.

Water level data from shallow wells continue to indicate that near-surface groundwater movement is generally a reflection of surface topography. Groundwater movement within the canyon areas, where most of the near-surface groundwater occurs, is generally in the same direction as surface flow in the canyons. Downward vertical movement of near-surface groundwater into the Chatsworth Formation bedrock also occurs.

B. Chatsworth Formation

The principal water bearing system at the Facility is the fractured Chatsworth Formation composed of poorly- to well-cemented, massive sandstone with interbeds of siltstone and claystone. Several structural features are apparent at the

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site including the Shear Zone, trending to the northeast through Area I, and several faults. These major features appear to compartmentalize groundwater flow as depicted on Figure 5 within the groundwater units that have been delineated (Montgomery Watson, 2000a; MWH, 2002). As indicated above, studies currently in progress indicate several additional geologic features are present at SSFL which influence groundwater flow, including faults and shale beds. While these additional features are not depicted on Figure 5, they may act to further compartmentalize SSFL into additional discrete groundwater units.

1. Groundwater Elevations and Flow Conditions

Water level measurements were obtained quarterly from all 126 Chatsworth Formation monitor wells during 2002 (Table 2, Appendix A). Access to measure water levels was not available at wells with FLUTe systems installed. Discrete depth-interval water level data from FLUTe wells are presented in Table 2 and Appendix A. Water levels from the shallowest well in each Chatsworth Formation cluster (or from individual Chatsworth Formation wells at non-cluster locations) obtained in November 2002 were used to prepare the water table contour map presented as Figure 5.

Chatsworth Formation water levels during the fourth quarter 2002 were generally lower than fourth quarter 2001 water levels. This decrease was largely the result of reduced precipitation, far below the yearly average. As noted above, recent field investigations have resulted in the installation of several multi-port sampling devices (FLUTes) in existing wells in the northeast portion and FSDF area of SSFL. The elevation of first water in the multi-port varies from that previously observed in the open well bores. Accordingly, the actual elevation of first encountered groundwater probably differs from that shown in Figure 5.

The determination of groundwater flow rates and direction are required per Title 22 Section 66264.97 of the California Code of Regulations. A groundwater table contour map is included in the annual report (Figure 5) to fulfill, in part, that requirement. A groundwater contour map is used in simple hydrogeologic settings to depict variations in the elevation of the water table surface, which can in turn be interpreted to reflect relative directions of groundwater flow. The groundwater elevation contours depicted in Figure 5 cannot be used to infer groundwater flow directions or rates of groundwater movement for the following reasons:

O Several hydraulically significant features such as fault zones and shale beds are present at SSFL and act as impediments to groundwater flow across them. Accordingly, while significant variations in the elevation of groundwater are present at SSFL, these differences do not necessarily indicate preferred directions of groundwater flow.

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- O The water level elevations depicted probably do not represent the elevation of the first occurrence of groundwater due to the relatively long open intervals of some of the monitoring wells. The water levels shown represent average heads over the screened or open interval.
- O Groundwater flow directions and rates in fractured rock are influenced by the bedrock matrix and possibly the orientation of structural features and stratigraphy.

Static depths to water in Chatsworth Formation wells measured during 2002 ranged from above land surface at artesian wells RD-59B, RD-59C, RD-68A, and RD-68B to 526.64 feet at well RD-47 in February 2002. Water level elevations measured in Chatsworth Formation monitor wells during November 2002 ranged from approximately 1,314 feet above mean sea level (MSL) at well RD-59A to 1,894 feet above MSL at well RD-42 (Table 2). As site characterization studies continue, the rate and direction of groundwater flow in each groundwater unit may be further refined.

2.02 Groundwater Quality Results

The groundwater monitoring program at SSFL fulfills the requirements of multiple regulatory programs prescribed by the Post-Closure Permits (California DTSC, 1995), a Class 2 Permit Modification of the Post-Closure Permits (California DTSC, 2001), and the LUFT program overseen by DTSC. Post-Closure Permit monitoring programs include the Evaluation Monitoring Program and Detection Monitoring Program. The Evaluation Monitoring Program requires semi-annual sampling of point of compliance wells, evaluation monitoring wells, and interim corrective action wells. Detection monitoring wells, including background wells, are sampled quarterly.

Per the groundwater monitoring program, groundwater samples were collected during 2002 from shallow and Chatsworth Formation wells, and selected off-site wells and springs. A summary of the specific analyses conducted at individual wells and springs during 2002 is presented in Table B-2 of Appendix B. This section summarizes the results of the routine quarterly groundwater monitoring program for 2002.

Groundwater sample results from Facility wells are compared to various regulatory limits for discussion purposes. For those compounds or water quality constituents that have Maximum Contaminant Levels (MCLs) promulgated per the Safe Drinking Water Act (SDWA), the MCLs are used for purposes of comparison. Some constituents of concern do not have associated MCLs, but have California State Action Levels (ALs) that are used for purposes of comparison and discussion. Action levels are health-based advisory levels for chemicals in drinking water that are established for those chemicals for which there are no formal regulatory standards. Water purveyors are required to advise their customers of the presence of these compounds in drinking water when concentrations are at or above action levels. If concentrations of these compounds exceed ten times the action levels, water



purveyors are required to remove the water source from their distribution system. In all cases, it is important to note that the groundwater beneath the SSFL Facility is not used to supply drinking water. All references to MCLs and ALs are for purposes of discussion only. In addition, reporting requirements in the Post-Closure Permits call for posting of all water quality results above method detection limits. These data are flagged to indicate the uncertainty associated with data reported at concentrations below the reporting limit.

Water quality results are tabulated in Tables 3 through 12. Analytical results for cis-1,2-dichloroethylene (cis-1,2-DCE) and trichloroethylene (TCE), the most prevalent contaminants detected in groundwater samples collected from the site, are posted on a site base map in Figures 6 through 9 for the near-surface and Chatsworth Formation groundwater systems. Maximum concentrations of constituents of concern detected during 2002 are posted on Figures 10 through 18. Constituents of concern that were not detected in any groundwater samples during 2002 are not posted on the figures. Figure 19 presents wells sampled for Appendix IX constituents during 2002. Concentrations of Appendix IX constituents detected during 2002 are posted on Figures 20 and 21.

Concentration versus time plots for constituents of concern at permitted wells are presented in Appendix F. Historic water quality results through 1999 were included in the 1999 annual monitoring report (GWRC, 2000). Water quality results for 2000 and 2001 were included in the 2000 and 2001 annual monitoring reports (Haley & Aldrich, Inc., 2001, 2002a) and in the 2001 Appendix IX report (Haley & Aldrich, Inc., 2002b).

During the 2002 routine quarterly sampling, laboratory analyses were performed for the determination of volatile organic compounds (VOCs), fuel hydrocarbons, trace metals, cyanide, semi-volatile organic compounds, perchlorate, gross alpha and beta, tritium, and gamma-emitting radionuclides. As part of the Chatsworth Formation Operable Unit (CFOU) groundwater investigation, a number of wells were monitored quarterly for constituents of concern (Table 12). A quality assurance summary of the monitoring program is presented in Appendix D.

As required by the existing Post-Closure Permits, seven point of compliance wells were monitored for the full list of Appendix IX constituents during the year per the 2002 schedule (Table B-1 of Appendix B). Although not required under the Post-Closure Permits, 20 additional shallow and Chatsworth Formation wells were sampled during the fourth quarter for Appendix IX constituents. Results of the fourth quarter 2002 analyses were subjected to a data validation process in accordance with guidance from the United States Environmental Protection Agency (USEPA) "National Functional Guidelines for Organic Data Review" (EPA540/R-99/008, October 1999), "National Functional Guidelines for Inorganic Data Review" (EPA540/R-94/00X, February 1994), and the EPA Method specific protocol criteria, where applicable. A summary of the data validation process is included in Appendix H.

A. Near-Surface Groundwater

Groundwater samples were collected from 24 shallow wells and the ECL Frenchdrain as part of the groundwater monitoring program in 2002. All analytical results

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were within historic ranges (GWRC, 2000; Haley & Aldrich, Inc., 2001, 2002a, 2002b), with the exceptions noted below. Results for each well are summarized in Tables 3 through 12. Deviations from historic water quality results for analytes exceeding the practical quantitation limits (PQLs) and results of verification sampling are discussed below.

1. LUFT Program

All volatile organic and fuel hydrocarbon analytical results for 2002 groundwater samples were within historic ranges (Tables 3 and 5).

2. Evaluation Monitoring Program/Interim Corrective Action Program

Sampling of shallow evaluation monitoring wells and interim corrective action wells was conducted during the first and third quarters of 2002. Results for each well are summarized in Table 3. All analytical results were within historic ranges.

3. Point of Compliance Program

During the second quarter 2002, shallow wells RS-08, HAR-14, and HAR-15 were sampled for the full suite of Appendix IX constituents (Table 11). Point of compliance well SH-04 was dry when monitored during the second and subsequent quarters of 2002. Additional Appendix IX samples were collected from nine shallow wells during November 2002. All analytical results for Appendix IX samples are discussed in Section C below.

4. Shallow Groundwater Radiochemistry Analyses

In other monitoring, results of radiological analyses of shallow groundwater samples collected during 2002 were consistent with historic data (Appendix E). None of the gross alpha, gross beta, or tritium results exceeded the drinking water Maximum Contaminant Levels (MCLs) of 15 picoCuries per liter (pCi/l), 50 pCi/l, or 20,000 pCi/l, respectively, except for the RS-54 gross alpha concentrations ranging up to 24.29 ± 6.92 pCi/l (Table 9). Results of historic and 2002 isotopic uranium analyses of RS-54 groundwater indicated that naturally-occurring uranium isotopes are present in groundwater samples collected from the SSFL Facility (Table 10). It is likely that the high gross alpha results from some Facility wells are associated with naturally occurring uranium. None of the gross beta or tritium results exceeded the drinking water MCLs of 50 pCi/l or 20,000 pCi/l, respectively (Table 9).

Groundwater sample results from the Facility wells are compared to drinking water MCLs for discussion purposes only. The groundwater beneath the SSFL Facility is not used for drinking water purposes.

MCL - Wag 5. Other Monitoring

All other monitoring of near-surface groundwater water quality during 2002 yielded results consistent with historical data with the following exceptions:

Manganese was reported in RS-54 groundwater at 0.23 milligrams per liter (mg/l) (Table 6). Manganese was analyzed previously and was reported in concentrations ranging up to 0.093 mg/l. These concentrations are above the 0.05 mg/l secondary drinking water MCL. Manganese is a naturally occurring metal that is commonly present in groundwater in excess of the secondary MCL.

6. Distribution of Select Contaminants

Distributions of TCE, cis-1,2-DCE, and constituents of concern detected in groundwater collected during 2002 from shallow Facility wells are illustrated on Figures 6, 7, and 10 through 21. Distribution of contaminants in near-surface groundwater is reduced compared to 2001. The reduced lateral occurrence of near-surface groundwater is attributed to below normal precipitation, coupled with the discontinued discharge of groundwater from treatment systems. Groundwater extraction has ceased at a number of wells as part of the CFOU field program.

B. Chatsworth Formation

Chatsworth Formation groundwater samples were collected from 117 Facility wells and 8 private off-site wells and springs as part of the groundwater monitoring program in 2002. Detection monitoring wells and background wells were sampled quarterly. For the Evaluation Monitoring Program, Chatsworth Formation evaluation monitoring wells and interim corrective action wells were sampled during the first and third quarters of 2002. Three Chatsworth Formation wells serving as point of compliance wells were sampled for Appendix IX parameters in 2002. An additional 14 Chatsworth Formation wells were sampled for Appendix IX constituents during the fourth quarter 2002. As part of the northeast Area I and Area II CFOU groundwater investigation, selected Chatsworth Formation wells were sampled quarterly for constituents of concern.

Analytical results of Chatsworth Formation groundwater samples collected during 2002 are summarized in Tables 4 through 12. Overall, results were consistent with historic results (GWRC, 2000; Haley & Aldrich, Inc., 2001, 2002a, 2002b). Deviations from historic water quality results for analytes reported above the PQLs are discussed below.

Note: During the year, several samples were collected from multi-level FLUTes installed in Chatsworth Formation wells. Many of the discrete interval samples

contained VOCs that were not consistent with groundwater samples collected from these wells according to standard procedures described in the Sampling and Analysis Plan. These VOCs, including acetone, benzene, 2-butanone (methyl ethyl ketone), chlorobenzene, and toluene, may be contaminants from electrical tape and/or FLUTe system components.

1. LUFT Program

During 2002, volatile organic and fuel hydrocarbon samples were collected from all LUFT Program wells that contained sufficient groundwater for sampling. All volatile organic and fuel hydrocarbon analytical results were within historic ranges (Tables 4 and 5), with the following exceptions:

- O Over the year, cis-1,2-dichloroethylene (cis-1,2-DCE) concentrations increased in RD-36C groundwater samples from 8.4 micrograms per liter (ug/l) in February 2001 to 60 ug/l in both February and August 2002 samples.
- O During the fourth quarter, acetone was reported at 11 ug/l in a duplicate sample collected from well RD-37. However, this compound was not detected above the PQL in either the primary sample or the split sample.
- o Vinyl chloride was reported at 89 ug/l in the discrete depth interval sample collected during the first quarter from one of the ports in the multi-level FLUTe installed in well RD-73. This concentration is not consistent with groundwater samples collected using the standard procedures described in the Sampling and Analysis Plan. In historic samples, vinyl chloride was detected only once in 1997 at a concentration of 4.5 ug/l (GWRC, 2000).
- o Low level benzene was reported in the discrete depth interval sample collected during the first quarter from the FLUTe installed in well RD-53. This concentration is not consistent with previous RD-53 groundwater samples collected using standard procedures described in the Sampling and Analysis Plan. Benzene has also been reported in previous samples collected from the FLUTes (Haley & Aldrich, 2002a). The FLUTe system sampling equipment layout in well RD-53 and depth to water conditions prevented the collection of groundwater samples from RD-53 during subsequent monitoring events.

2. Detection Monitoring Program

Chatsworth Formation detection monitoring and background wells were sampled quarterly during 2002 (Tables 4 through 12). No VOCs were reported above the PQLs in water samples collected from detection monitoring and background wells with the following exceptions:



- O TCE was detected at concentrations ranging up to 1.8 ug/l in verification samples collected from background well RD-13 (Table 8). During the fourth quarter of 2000, TCE had been reported at 400 ug/l and was attributed to field contamination from a temporary pump that was not properly decontaminated prior to installation at RD-13 (Haley & Aldrich, 2002a).
- o In the fourth quarter, a split sample collected from well RD-05C on 11/11/02 reportedly contained TCE at 12 ug/l. However, samples collected from this well on 11/11/02 and 11/19/02 and analyzed by the primary laboratory did not contain TCE.
- O The fourth quarter duplicate sample collected from well RD-37 contained 11 ug/l of acetone. This compound was not detected above the POL in either the primary or split samples.
- O The split laboratory reported 0.81 ug/l of TCE in the fourth quarter sample collected from background well RD-48B. However, TCE was not detected in either the primary or duplicate samples.
- Analyzed past the holding time, 1,4-dioxane was reported above the 3 ug/l action level at estimated concentrations of 4.17 ug/l and 4.16 ug/l in fourth quarter samples collected from detection wells RD-44 and RD-58B, respectively. This compound has not been detected in historic samples collected from these wells.

Prior to FLUTe installation, a groundwater sample collected from detection monitoring well RD-39A in April 2001 contained TCE at a concentration of 0.5 ug/l. Verification sampling has been scheduled at well RD-39A since that time, but the well has not contained sufficient water for sampling.

Per the Post-Closure Permits, verification sampling will be conducted at wells RD-37, RD-39A, and RD-48B during the first quarter 2003 to determine if VOCs are present in groundwater at these detection monitoring wells. In addition, samples will be collected at wells RD-44 and RD-58B for the analysis of 1,4-dioxane.

3. Evaluation Monitoring Program/Interim Corrective Action Program

Sampling of Chatsworth Formation evaluation monitoring wells and interim corrective action wells was conducted during the first and third quarters of 2002. Results for each well are summarized in Tables 4 through 12. All analytical results were within historic ranges (GWRC,



2000; Haley & Aldrich, Inc., 2001, 2002a, 2002b) with the following exceptions:

- O As discussed in Section 4 below, increased VOC concentrations observed in samples collected from interim corrective action wells RD-01, RD-02, and WS-09 may be concentration rebound effects that occurred following the inactivation of these extraction wells during CFOU groundwater investigations.
- One perchlorate sample was collected from evaluation monitoring well RD-10 during the first quarter prior to FLUTe installation. In quarterly monitoring thereafter, depth discrete samples were collected from the FLUTe system and composited for the analysis of perchlorate. Results are discussed in Section 4 below.
- O Chloromethane was detected at 1.1 ug/l in groundwater collected during the first quarter from evaluation monitoring well RD-40 (Table 4). This analyte had not been detected in previous groundwater samples collected from this well and was not detected in subsequent samples collected during the second and third quarters.
- O Low levels of acetone, benzene, 2-butanone, chlorobenzene, and toluene were reported in discrete depth interval samples collected from the FLUTes installed in evaluation monitoring wells RD-10, RD-45A, and HAR-24 (Table 4). These compounds are not representative of previous groundwater samples collected from these wells according to standard procedures described in the Sampling and Analysis Plan and are believed to be associated with sampling system equipment.
- Compared to previous samples collected according to the standard SAP procedures, discrete depth interval samples collected from the FLUTe installed in HAR-24 contained higher concentrations of cis-1,2-DCE and lower concentrations of trichloroethylene (TCE) (Table 4). During the first quarter 2001, HAR-24 contained 0.42 ug/l and 120 ug/l of cis-1,2-DCE and TCE, respectively. First quarter 2002 discrete depth interval samples contained cis-1,2-DCE and TCE at concentrations ranging up to 34 ug/l and 3.9 ug/l, respectively.
- O As discussed in the LUFT Program section, cis-1,2-DCE concentrations in evaluation monitoring well RD-36C increased from 8.4 ug/l in February 2001 to 60 ug/l in February and August 2002 (Table 4).



- O Toluene was reported at 3.8 ug/l in the sample collected from interim corrective action well RD-04 during the second quarter (Table 4). This compound was not detected in subsequent samples. Toluene is a suspected equipment contaminant that may have been introduced during pump motor replacement at RD-04 prior to second quarter sampling.
- Concentrations of acetone, cis-1,2-DCE, TCE, and vinyl chloride in groundwater samples collected from evaluation monitoring well RD-55A increased during 2002:

Commonad	Concentration (ug/l)			
Compound	First Quarter 2001	Fourth Quarter 2002		
Acetone	ND	36,000		
Cis-1,2-DCE	ND	810		
TCE	1.8	910		
Vinyl chloride	ND	42		

ND = not detected

Concentration increases were accompanied by a groundwater decline at RD-55A (Appendix A, Figure A-176).

- O As discussed in Section 4 below, concentrations of nnitrosodimethylamine (NDMA) were reported above the California drinking water action level of 0.01 ug/l in samples collected from interim corrective action wells RD-01, RD-02, and RD-04.
- O As discussed in Section 4 below, 1,4-dioxane was reported above the drinking water action level of 3 ug/l in the sample collected from interim corrective action well WS-05.

4. Constituents of Concern Analyses

Per the Post-Closure Permits, Chatsworth Formation detection monitoring wells and background wells were originally sampled and analyzed for all constituents of concern in 1996. Background wells were sampled and analyzed again for constituents of concern in 1999. During 2000, all detection monitoring wells, background wells, and evaluation monitoring wells were sampled for constituents of concern (Haley & Aldrich, Inc., 2001a). As part of the on-going Chatsworth Formation Operable Unit (CFOU) Investigation, quarterly sampling for constituents of concern was conducted during 2002 at five Area I wells (RD-01, RD-02, RD-10, RD-44, and WS-05) and seven Area II wells (HAR-20, RD-04, RD-49A, RD-49B, RD-49C, WS-06, and WS-09) (Table 12). Wells HAR-20, RD-04, and WS-09 were added to the quarterly constituent of concern monitoring during the third quarter 2002. Well HAR-20 was dry when monitored during the third and fourth quarters.

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Ammonia was detected in groundwater samples from each sampled well at concentrations ranging up to 0.59 mg/l in a sample collected from well RD-04. Fluoride and nitrate concentrations in groundwater collected from the 11 sampled wells were below the federal drinking water primary MCLs of 2.0 mg/l for fluoride and 10 mg/l for nitrate-nitrite as nitrogen. Formaldehyde was reported above the California drinking water action level of 100 ug/l at concentrations of 110 ug/l and 300 ug/l in the third quarter samples collected from RD-49A and WS-09, respectively. During the fourth quarter, formaldehyde was not detected in samples collected from RD-49A and WS-09. All other formaldehyde concentrations were below the action level.

Excluding groundwater results in which NDMA was also present in the associated laboratory method blanks, NDMA was reported in at least one 2002 quarterly groundwater sample from each of the wells except RD-10, RD-44, and WS-05. Five wells contained NDMA in concentrations exceeding the California drinking water action level of 10 nanograms per liter (ng/l): RD-01, RD-02, RD-04, RD-49B, and RD-49C. Maximum NDMA concentrations reported in groundwater from these wells were 56 ng/l in RD-01, 11 ng/l in RD-02, 26 ng/l in RD-04, 56 ng/l in RD-49B, and 22 ng/l in RD-49C.

During 2002, perchlorate was only detected in groundwater collected from well RD-10. During the first quarter, perchlorate was reported at 54 ug/l in RD-10 groundwater. Following the installation of a FLUTe system, composite samples were collected quarterly from RD-10 FLUTe ports 3, 6, and 9 located at depth intervals of approximately 211 to 221 feet, 271 to 281 feet, and 331 to 341 feet, respectively. The composite sample concentrations ranged up to 180 ug/l. Results of June 2002 perchlorate samples collected by MWH from individual FLUTe ports are included in Table 8. The California drinking water action level for perchlorate is 4 ug/l.

VOC concentrations were within historic ranges with the following exceptions:

o Increased VOC concentrations observed in samples collected from wells RD-01, RD-02, and WS-09, as summarized below, may be concentration rebound effects that occurred following the inactivation of these extraction wells during CFOU groundwater investigations. Wells RD-01 and RD-02 were inactivated during 2000, while well WS-09 was inactivated during 2002.

Well	C	Maximum Concentration (ug/l)			
WEII	Compound	2000	2001	2002	
RD-01	Cis-1,2-DCE	150	340	900	
	TCE	220	610	1,200	
RD-02	Cis-1,2-DCE	140	700	580	
	TCE	120	700	470	
WS-09	Cis-1,2-DCE	4.7	3.6	540	
	TCE	61	46	7,500	

During 2002, 1,4-dioxane was reported at least once in groundwater samples collected from wells RD-01, RD-02, RD-10, RD-44, RD-49C, WS-05, and WS-09. Excluding groundwater results in which 1,4-dioxane was also present in the associated laboratory method blanks, 1,4-dioxane results exceeded the California drinking water action level of 3 ug/l in samples collected from wells RD-44 and WS-05 at estimated concentrations of 4.17 ug/l and 5.86 ug/l, respectively.

5. Monitoring of Perimeter Wells and Private Off-Site Wells and Springs

Perimeter wells near the site boundary were sampled quarterly during 2002 (Tables 4 through 10). Additional sampling occurred at private off-site wells and springs over the year. Perchlorate was not detected in perimeter or off-site wells during 2002 monitoring (Table 8). Analytical results indicated that analytes were not detected above the PQLs in groundwater samples collected from perimeter well and private off-site wells and springs with the following exceptions:

- Although the iron results for perimeter wells RD-33B and RD-59A and the manganese result for RD-33B exceeded the secondary maximum contaminant levels (Table 6), all results were comparable to historic groundwater samples collected from these wells. Iron and manganese are naturally occurring metals that are commonly present in groundwater in excess of the secondary MCLs.
- O Discrete depth interval samples were collected from multi-level FLUTes installed in perimeter wells RD-66 and RD-71 and private off-site well OS-24 (Table 4). Low levels of benzene, chlorobenzene, and toluene were reported in several FLUTe samples. Many of these compounds were detected in FLUTe samples collected during the previous year (Haley & Aldrich, 2002a). These compounds have not appeared in groundwater samples collected from these wells using standard procedures described in the Sampling and Analysis Plan. Following the removal of FLUTes from wells RD-66 and RD-71, groundwater samples collected during the third and fourth quarters did not



contain these compounds except for one third quarter split sample from RD-71 that contained toluene at an estimated concentration of 0.47 ug/l. Toluene was not detected in the fourth quarter sample collected from well RD-71. Benzene and related compounds present in samples collected from FLUTe ports are likely contaminants from FLUTe system components. These low level concentrations of toluene and benzene have been observed by investigators using FLUTe systems at other sites and are attributed to equipment components (Keller, telephone conversation, 2003).

- O Acetone was reported at 12 ug/l in the fourth quarter sample collected from perimeter well RD-71 (Table 4). This common laboratory contaminant has not been detected before in groundwater collected from this well following the standard procedures described in the Sampling and Analysis Plan.
- O Benzene and toluene were detected at concentrations of 0.67 ug/l and 1.4 ug/l, respectively, in groundwater collected from well RD-70 during the third quarter. Neither compound was detected in duplicate and split groundwater samples collected from this well during the fourth quarter.

A number of VOCs were reported between the MDLs and PQLs in samples collected from private off-site wells OS-16 and OS-26 (Table 4):

- The estimated 0.34 ug/l concentration of TCE reported in the third quarter sample collected from well OS-16 was not confirmed in duplicate and split samples collected during the fourth quarter. TCE was detected only twice before in OS-16 samples, but was attributed to laboratory contamination in each case. In the fourth quarter samples collected from OS-16, acetone was reported at an estimated concentration of 4.3 ug/l in the field duplicate sample. A common laboratory contaminant, acetone was not detected in either the primary sample or the split sample collected from OS-16.
- Estimated concentrations of benzene, ethylbenzene, toluene, and m,p-xylenes (BTEX) were reported below PQLs in the groundwater sample collected from private well OS-26 during the third quarter. However, similar concentrations of these compounds also were detected in the field blank prepared at this well and in the sample from perimeter well RD-56B. All three VOC samples were analyzed in the same batch. The source of BTEX in these samples is unknown. OS-26 will next be monitored during the first quarter 2003.



6. Point of Compliance Program

During 2002, Chatsworth Formation point of compliance wells HAR-07, HAR-16, and HAR-17 were monitored for the full suite of Appendix IX constituents (Table 11). Composite samples were prepared for the analysis of VOCs, 1,4-dioxane, and semi-volatile organic samples collected from discrete depth interval ports 7 through 12 of the FLUTe installed in well HAR-16. Additional Appendix IX samples were collected from 20 Chatsworth Formation wells during November 2002. All analytical results for Appendix IX samples are discussed in Section C below.

7. Chatsworth Formation Radiochemistry Analyses

In other monitoring, groundwater samples from select wells are routinely analyzed for gross alpha activity and gross beta activity using EPA Method 900.0, gamma spectroscopy using EPA Method 901.1 and tritium using EPA Method 906.0. Results of radiological analyses of Chatsworth Formation groundwater samples collected during 2002 were generally consistent with historic data (Appendix E), with the following exceptions and notation.

Groundwater samples from three wells (RD-07, RD-28, and RD-29) exceeded the gross alpha drinking water MCL of 15 pCi/l (Table 9). Review of historic gross alpha results indicate that gross alpha activity from wells RD-28 and RD-29 periodically exceed the MCL. Results of historic isotopic uranium analyses for wells RD-07, RD-28 and RD-29 and isotopic uranium analyses conducted in 2002 (Table 10) indicated that naturally-occurring uranium and thorium isotopes are present in groundwater samples collected from these and other wells located at the SSFL Facility. The results of specific radioisotopes suggest that, in general, the slightly elevated concentrations of gross alpha activity observed in groundwater samples can be attributed primarily to components of the naturally occurring uranium-238 decay series. None of the gross beta results exceeded the drinking water MCL of 50 pCi/l.

Groundwater samples are routinely collected from select wells for analysis of gamma ray spectroscopy to document the occurrence of natural gamma emitters in groundwater, and to monitor for potential anthropogenic gamma activity. Project specific technical specifications, including Minimum Detectable Activities (MDAs) have been developed to insure collection of meaningful data, and to conform with recent EPA Drinking Water regulations. Review of the gamma spectroscopy data indicates that some data do not meet the MDA requirements. Non-attainment of the MDA technical specifications are due, in part, to matrix conditions and, in part, to limitations in the prescribed analytical methods. Matrix conditions, including dissolved and suspended solids, impact the homogeneity of the samples and limit method counting efficiency.



Additionally, prescribed analytical methods call for specified sample volumes and counting times that further limit the ability to attain the project MDAs. Potential corrective measures, including increasing counting volumes from 0.5 liters (L) to 1.5 L, and increasing counting times, are being evaluated to attain project MDAs. None of the gamma spectroscopy data exceeded recent EPA Drinking Water MCLs, or indicated the presence of anthropogenic gamma emitters (Table 10). Groundwater sample results from the Facility wells are compared to drinking water MCLs for discussion purposes only. The groundwater beneath the SSFL Facility is not used for drinking water purposes.

None of the tritium results exceeded the drinking water MCL of 20,000 pCi/l (Table 9). Review of historic tritium data indicate slightly elevated tritium results with respect to background values in samples collected from well RD-34A (Table 9). Due to below normal precipitation in 2002, well RD-34A was dry in 2002, and no samples were obtained from this well. Samples for the analysis of tritium will be collected from well RD-34A as soon as hydrogeologic conditions permit.

In February 2002, analysis of tritium for samples from well RD-59A indicated an elevated tritium value with respect to background (Appendix E). These samples were subjected to numerous re-analyses as a result of inquires related to discrepancies compared to historical values, and deviation from EPA prescribed analytical procedures, particularly questions related to water sources used for method background determination. Results of these reanalyses ranged from 185 ± 59 pCi/L to 536 ± 115 pCi/L with MDAs ranging from 175 to 350 pCi/L. The highest tritium value was reported to err on the side of caution, though the cause for the range in values and the concerns over method procedure were not resolved. Corrective actions were implemented to address these service delivery issues, including development of project specific laboratory specifications, and selection of a different laboratory provider, Eberline Services, formerly ThermoNutec, that had provided radiochemistry laboratory services in support of the SSFL monitoring program from 1998 through early 2001. Samples for the analysis of tritium were collected again in August 2002, and submitted to Eberline Services. The reported tritium value was 55.1 ± 120 pCi/L (Table 9). This value is consistent with historical results.

8. Monitoring of Other Facility Wells

Several Facility wells that are not monitored as part of the LUFT program; the interim corrective action, evaluation monitoring, detection monitoring or point of compliance programs; or that are not perimeter wells, were sampled during 2002 (Tables 4 through 10). Semi-annual groundwater samples were collected during 2002 from FSDF-area and Radioactive Materials Handling Facility (RMHF)-area wells. VOC, perchlorate, trace



metal, and radiochemical results for these samples were within historic ranges with the following exceptions (Tables 4 and 6):

- Trace metal results were within historical ranges except for a slightly elevated manganese result of 58 ug/l at well RD-15 (Table 6). In some cases (e.g., manganese in RD-54A groundwater and lead in RD-54B groundwater), slightly elevated results were reported in the first quarter, but declined to within historic ranges in third quarter samples. Although a few other trace metal results exceeded secondary MCLs, the results were within the range of historic results. The secondary MCL for manganese is 50 ug/l and the action level for lead is 15 ug/l. As discussed earlier, manganese is a naturally occurring metal that is commonly present in groundwater in excess of the secondary MCL.
- O The discrete depth interval sample collected from the FLUTe installed in well RD-31 contained low levels of benzene and toluene (Table 4). These compounds are not representative of RD-31 groundwater and may have been contaminants from electrical tape and/or FLUTe system components.
- O Trichlorofluoromethane (Freon 11) was reported at 1.0 ug/l in the sample collected from well RD-65, located near the Former Sodium Disposal Facility (Table 4). This compound has not been detected in previous groundwater samples collected from this well.

9. Distribution of Select Contaminants

Distributions of TCE, cis-1,2-DCE, constituents of concern, and Appendix IX constituents detected in samples collected during 2002 from Chatsworth Formation Facility wells and private off-site wells and springs are illustrated on Figures 8 through 20. Contaminant distributions did not change significantly during 2002 compared to 2001 distributions (Haley & Aldrich, Inc., 2002a).

C. Appendix IX Sampling

1. Wells Sampled During 2002

During 2002, six of the seven point of compliance wells (shallow wells RS-08, HAR-14, and HAR-15; and Chatsworth Formation wells HAR-07, HAR-16, and HAR-17) were sampled for Appendix IX constituents. Point of compliance well SH-04 was dry when monitored during the year. Additional Appendix IX samples were collected from nine shallow wells and 20 Chatsworth Formation wells during November 2002. The table below lists regulated units and associated 26 wells sampled for Appendix IX sampled during 2002. Ten other wells monitored in November 2002



could not be sampled because the wells were dry or contained insufficient water for sampling.

2002 APPENDIX IX SAMPLES						
Location Wells Sample Date Comment						
RCRA Unit						
ABSP	HAR-09	11/14/02				
	HAR-21	11/06/02				
	RS-08	05/07/02				
	WS-09	11/21/02				
APTF	HAR-01	11/04/02				
	HAR-02		Dry			
	HAR-03		Dry			
	HAR-04		Insufficient water			
	HAR-16	11/05/02				
	RD-45B	11/13/02				
Delta	HAR-07	05/14/02				
	HAR-08	11/20/02				
	HAR-27	11/06/02				
	HAR-28	11/20/02				
	WS-09A	11/20/02				
ECL	HAR-26	11/20/02				
	SH-03		Dry			
	SH-04		Dry			
	SH-09		Dry			
	SH-10		Dry			
	RD-08	11/20/02				
SPA 1 & 2	HAR-12	11/20/02				
	HAR-14	05/07/02				
	HAR-15	05/07/02				
	HAR-30		Dry			
STL-IV 1 & 2	HAR-17	05/07/02				
	HAR-32	11/21/02				
	HAR-33	11/21/02				
	ES-17		Dry			
	ES-27		Insufficient water			
	ES-32		Dry			
	RS-14		Dry			
Non-RCRA Monitoring						
Perimeter Wells	RD-05A	11/19/02				
	RD-05B	11/19/02				
•	RD-05C	11/19/02				
	RD-58A	11/21/02				
	RD-58B	11/19/02				
	RD-58C	11/19/02				

Insufficient water conditions at some wells (HAR-01, HAR-09, HAR-16, HAR-32, HAR-33) precluded the collection of a full suite of Appendix IX constituents.



2. Data Validation

Results of the fourth quarter 2002 analyses were subjected to a data validation process in accordance with guidance from the United States Environmental Protection Agency (USEPA) "National Functional Guidelines for Organic Data Review" (EPA540/R-99/008, October 1999), "National Functional Guidelines for Inorganic Data Review" (EPA540/R-94/00X, February 1994), and the EPA Method specific protocol criteria, where applicable. A summary of the data validation process is included in Appendix H.

3. Analytical Results

Groundwater samples were collected from 26 Facility wells as part of the Appendix IX groundwater monitoring program in 2002. Results for each well are summarized in Table 11 and on Figures 20 and 21.

All Appendix IX analytical results for shallow point of compliance wells were within historic ranges with the following exceptions:

- O The HAR-14 sample contained 115 ug/l of 1,4-dioxane. This compound has been detected previously in HAR-14 groundwater at concentrations above the California action level of 3 ug/l.
- N-nitrosodimethylamine (NDMA) was reported at 4.6 nanograms per liter (ng/l) in the RS-08 groundwater sample. NDMA has not been detected previously at RS-08. The reported concentration did not exceed the California action level of 10 ng/l. RS-08 will next be sampled for NDMA during the second quarter 2003.
- o NDMA was reported at 390 ng/l in the HAR-14 groundwater sample. Although NDMA has been detected previously at HAR-14, the reported concentration exceeded the California action level of 10 ng/l. HAR-14 will next be sampled for NDMA during the second quarter 2003.

All Appendix IX analytical results for Chatsworth Formation point of compliance wells were within historic ranges with the following exceptions:

o NDMA was reported at 62 ng/l and 82 ng/l in samples collected from wells HAR-07 and HAR-17, respectively. NDMA was not detected in previous samples collected from HAR-07 (Haley & Aldrich, 2002a). NDMA was reported for the first time in HAR-17 groundwater in May 2001 at a concentration of 38 ng/l. Both second quarter results exceeded the California drinking water



action level of 10 ng/l. Both wells will next be sampled for NDMA during the second quarter 2003.

Appendix IX compounds detected in point of compliance wells during 2002 were already listed as constituents of concern; no new compounds were detected above the PQLs. Per the Post-Closure Permits, the point of compliance wells are monitored annually for Appendix IX constituents and will next be sampled during the second quarter 2003.

4. Future Appendix IX Sampling

Changes to Appendix IX sampling requirements are being discussed with DTSC as part of the on-going review and revision of the Facility Post-Closure Permits.

D. Results of Fourth Quarter 2002 Verification Sampling

During the fourth quarter 2002, verification samples were collected from private off-site well OS-16 and evaluation monitoring well RD-55A. Detection monitoring well RD-39A contained inadequate water for verification sampling during the quarter; this well will be re-scheduled for the first quarter 2003. Verification procedures include collecting primary and duplicate samples, a split sample, and a field blank at each well. In addition, duplicate samples scheduled from point of compliance well HAR-07 for the analysis of low-level NDMA were not collected due to insufficient water volume in the well. Results for the target wells and analytes are summarized in the following table.

		Monitoring Program	Concentration (ug/l)			
Well	Constituent(s)		Primary	Duplicate	Split	Field Blank
RD-39A	TCE	Detection	Dry			
RD-55A	Acetone	Evaluation	24,000	26,000	36,000	3.7 U
	Cis-1,2-DCE	Evaluation	730	810	770	0.13 U
	TCE	Evaluation	780	830	910	0.13 U
	Vinyl chloride	Evaluation	52 U	26 U	42	0.13 U
HAR-07	NDMA	Point of Compliance	Dry			
OS-16	TCE	None	0.13 U	0.13 U	0.2 U	0.13 U

ND = not detected

NA = Not applicable; sample not collected.

E. Proposed 2003 Groundwater Monitoring Schedule

Appendix B, Table B-3 presents the proposed 2003 groundwater monitoring schedule which complies with monitoring requirements specified in the Post-Closure Permits. The 2002 results indicated that verification sampling be conducted during the first quarter of 2003 to determine if VOCs are present in groundwater at detection monitoring wells RD-37, RD-39A, and RD-48B. Also in the first quarter 2003, 1,4-dioxane samples will be conducted to determine if 1,4-



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dioxane is present in groundwater at detection monitoring wells RD-44 and RD-58B.

The proposed 2003 sampling schedule reflects on-going groundwater monitoring programs as established under the current Facility Post-Closure Permits, Permit Modification, LUFT programs, and voluntary monitoring activities. Boeing is presently working with DTSC on comprehensive review of the Post-Closure Permits. It is anticipated that portions of the Regulated Unit Monitoring Programs, including the Detection Monitoring Program, Evaluation Monitoring Program, Interim Corrective Measures, and Appendix IX, will differ from the schedule presented in Table B-3 once permit modifications are implemented.

III. REMEDIAL SYSTEMS

3.01 Remedial Systems Activities

Remedial systems in operation at the Facility during the 2002 calendar year included three permitted air-stripping units located at Bravo, Delta and STL-IV. The Area I Road air-stripping unit and the WS-5 Area UV/hydrogen peroxide system were shut off in late 2000 as part of on-going site investigation activities by Montgomery Watson (2000b; Ogden, 2000). The Alfa air-stripping unit was turned off in March 2001 and the Bravo air-stripping unit was turned off in May 2002, also to facilitate site investigation activities by MWH.

Of the 20 shallow and 12 Chatsworth Formation extraction wells at the Facility, only four of the Chatsworth Formation wells were in operation during the fourth quarter of 2002. As part of the Near-Surface Groundwater Investigation (Ogden, 2000), all shallow extraction wells were inactive at areas including the former RD-9 remediation system, along Area I Road, near APTF, in STL-IV, and at ECL. The remediation systems and their associated extraction wells are listed in Tables 13 and 14. Monthly and cumulative extraction volume and VOC mass removal at each permitted system are presented in Appendix G, Figures G-1 to G-9.

Additionally, there are three interim extraction/remediation systems located in Area IV at RMHF, FSDF, and B/059. These systems treat pumped groundwater with granular activated carbon (GAC) and resin prior to discharge. There are five Chatsworth Formation wells, one shallow well, one sump, and one excavated pit associated with the interim systems. The interim systems and their associated extraction wells are listed in Table 15.

All operating remedial systems are monitored monthly by EnviroSolve Corporation, which submits monthly reports listing routine operational data of all systems, including sample analytical data for treatment system influents and effluents. Samples from remedial system influents and effluents are analyzed for VOCs by EPA Method 8010. Concentrations of TCE and both isomers of 1,2-DCE, the primary VOCs detected from all permitted systems, are summarized for the year 2002 in Table 16. In addition to these primary VOCs, concentrations of other chlorinated solvents were occasionally detected in treatment system influent streams. Concentrations of 1,1-dichloroethylene and 1,1,1-trichloroethane were detected in the STL-IV ASU influent during 2002. Additionally, samples from the Bravo, Delta and STL-IV system influents were analyzed for semi-volatile organic compounds (SVOCs) by EPA Method 8270. No SVOCs were detected in samples collected from the Bravo, Delta and STL-IV systems during 2002 (Table 16). During 2002, samples from the Delta and STL-IV influents were also analyzed for perchlorate by modified EPA method 300.0, but none was detected (Table 16).

Surface water discharge is regulated by National Pollution Discharge Elimination System (NPDES) permit No. CA-0001309. Discharge limits and results of water quality analyses of surface water samples collected at Outfall 002 are presented in Appendix G, Table G-1. Outfall 001 was dry throughout 2002.



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A. Permitted Systems

Only the Bravo, Delta, and STL-IV remediation systems were in operation during 2002. The Delta and STL-IV systems were in operation the entire year, but the Bravo system was turned off in May as part of site investigation activities underway by MWH. The Area I Road air-stripping unit and the WS-5 Area UV/hydrogen peroxide system were shut off in late 2000 and did not operate In 2001, DTSC granted Post-Closure Permit during the reporting period. modifications allowing deactivation of the Area I Road air-stripping unit to standby status. Future groundwater extractions from the Area I Road unit will be rerouted to the WS-5 Area UV/hydrogen peroxide system. If additional capacity is desired and/or needed, the Area I Road unit may be reactivated. The Alfa system was shut down in March 2001, also to accommodate the ongoing groundwater investigation. Total pumpage from all permitted systems in 2002 was approximately 29.7 million gallons. Monthly water levels and flow rates are listed by well in Table 13. Monthly and cumulative pumpage volumes are listed by well in Table 14. Routine operational data for each permitted system are presented in the monthly reports from EnviroSolve Corporation (2002a through 2002l).

TCE and cis-1,2-DCE were detected in several secondary effluent samples from the Bravo system while it was operational and from the Delta system in September, November, and December. The highest results reported were from the Delta secondary effluent on December 4, 2002. The reported concentrations of 4.5 ug/l TCE and 4 ug/l cis-1,2-DCE were below drinking water MCLs. The Bravo results were traced to a discharge nozzle plugged with scale in the secondary tower. The Delta results are believed to have been caused by a malfunctioning transfer pump. Both situations were corrected.

B. Interim Systems

Interim systems in operation at the Facility during 2002 included the RMHF extraction/treatment system and the B/059 construction/dewatering system, which includes the B/056 pit and the S-2 sump. The FSDF system, which was inactive all of 2001, resumed operation in February 2002, with RS-54 as the sole extraction well. The total pumpage from all interim systems during 2002 was approximately 639,200 gallons. Monthly and cumulative pumpage volumes are listed by well in Table 15. Routine operational data for each interim system are presented in the monthly reports from EnviroSolve Corp. (2002a through 2002l).

No VOCs were detected in effluent samples collected from the interim systems during 2002. Previous samples from well RS-54 had indicated the presence of perchlorate in shallow groundwater near FSDF. Consequently, when the interim treatment system in that area resumed operation, in addition to the two carbon drums previously used to remove VOCs from the water, two ion exchange resin drums were added to the treatment stream to remove any perchlorate present. According to information in the EnviroSolve reports, water samples were collected

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monthly from the FSDF system influent and at the midpoint between the two resin drums. Analytical data indicated that perchlorate concentrations in the influent ranged between 5 and 8 ug/l during the year, but in the midpoint samples, concentrations were consistently below the detection limit of 4 ug/l.

3.02 Additional Sampling

A summary of laboratory analytical results for water samples collected from extraction wells and treatment systems for NDMA, 1,4-dioxane and perchlorate from 1987 through 2002 has been compiled and is presented in Table 17. These data include analytical results from regular monitoring activities and from additional sampling during August 2002. To facilitate the additional sampling, selected extraction wells and treatment systems that were inactive in support of the CFOU characterization, were activated and sampled if adequate groundwater was present.

Review of sampling results for perchlorate in water samples collected from extraction wells and treatment system effluents indicate the occurrence of perchlorate in five shallow extraction wells at concentrations ranging from 5 ug/l to 48 ug/l. In addition, perchlorate occurs in three Chatsworth Formation extraction wells at concentrations ranging from 3.7 ug/l to 670 ug/l. Wells with perchlorate detects have either been taken out of service or appropriate treatment systems have been introduced (e.g., RS- 54 and RD-31).

Review of sampling results for 1,4-dioxane in water samples collected from extraction wells and treatment system effluents indicate the occurrence of 1,4-dioxane in eight shallow extraction wells and the ECL French Drain at concentrations ranging from 3.75 ug/l to 72 ug/l. Additionally, 1,4-dioxane was reported in seven Chatsworth Formation wells at concentrations ranging from 1.4 ug/l to 72 ug/l. The highest concentrations of 1,4-dioxane detected in extraction wells occur in the STL-IV area (Table 17). The data indicate that 1,4-dioxane was detected once in a treatment system secondary effluent sample. The single detection occurred in the STL-IV treatment system effluent stream at a concentration of 20 ug/l in August 2002. Well HAR-18, the likely source of 1,4-dioxane to the STL-IV treatment system, has been removed from service.

NDMA in water samples collected from extraction wells and treatment system effluents indicate the occurrence of NDMA in four shallow extraction wells at concentrations ranging from 7.1 ng/l to 24 ng/l. NDMA has been detected in 11 Chatsworth Formation extraction wells at concentrations ranging from 0.94 ng/l to 26,000 ng/l. The highest concentrations of NDMA in extraction wells occur in the vicinity of APTF and STL-IV (Table 17). The data indicate that NDMA was detected once in the STL-IV treatment system secondary effluent. The single detection occurred in the STL-IV treatment system secondary effluent at a concentration of 4.2 ng/l in August 2002. Well HAR-18, the likely source of NDMA to the STL-IV treatment system, has been removed from service.

In general, the data are consistent with the site-wide groundwater monitoring data demonstrating that NDMA, perchlorate, and 1,4-dioxane occur in both limited concentration and distribution at SSFL.



IV. REFERENCES

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TABLE 1
SUMMARY OF ANNUAL RAINFALL
MEASURED AT THE SANTA SUSANA FIELD LABORATORY, 1960-2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Water Year Ending in	Precipitation (inches)	Water Year Ending in	Precipitation (inches)
1960	10.52	1982	12.11
1961	6.18	1983	40.93
1962	24.79	1984	9.50
1963	13.74	1985	9.64
1964	9.96	1986	23.55
1965	16.06	1987	6.27
1966	27.18	1988	17.75
1967	23.99	1989	9.46
1968	19.54	1990	8.38
1969	32.11	1991	15.10
1970	11.81	1992	32.21
1971	16.79	1993	36.23
1972	8.68	1994	12.52
1973	20.69	1995	29.91
1974	16.11	1996	21.81
1975	16.58	1997	15.44
1976	10.99	1998	41.24
1977	13.91	1999	8.84
1978	40.06	2000	12.07
1979	22.96	2001	17.52
1980	28.61	2002	5.70
1981	16.25	1	

Average Annual Precipitation = 17.89 Inches

NOTE: Precipitation reported annually for the period of October through September.

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Data of	Reference Point	Depth	Static Water	
well Identifier	Date of Measurement	Elevation	to Water	Level Elevation	Footnotes
laenanei	weasurement	(feet above MSL)	(feet)	(feet above MSL)	
Shallow Wells					
SH-01	02/11/02	1772.84	DRY		
SH-01	04/30/02	1772.84	DRY		
SH-01	08/06/02	1772.84	DRY		
SH-01	10/29/02	1772.84	DRY		
SH-02	02/11/02	1762.76	9.99	1752.77	
SH-02	04/30/02	1762.76	DRY		
SH-02	08/05/02	1762.76	DRY		
SH-02	10/29/02	1762.76	DRY		
SH-03	02/11/02	1762.53	DRY		
SH-03	04/30/02	1762.53	DRY		
SH-03	08/05/02	1762.53	DRY		
SH-03	10/29/02	1762.53	DRY		
SH-04	02/11/02	1765.08	DRY		
SH-04	04/30/02	1765.08	DRY		
SH-04	08/05/02	1765.08	DRY		
SH-04	10/29/02	1765.08	DRY		
SH-05	02/11/02	1762.97	DRY		
SH-05	04/30/02	1762.97	DRY		
SH-05	08/05/02	1762.97	DRY		
SH-05	10/29/02	1762.97	DRY	***	
SH-06	02/11/02	1776.99	DRY		
SH-06	04/30/02	1776.99	DRY		
SH-06	08/06/02	1776.99	DRY		
SH-06	10/29/02	1776.99	DRY		
SH-07	02/11/02	1775.11	DRY		
SH-07	04/30/02	1775.11	DRY		
SH-07	08/06/02	1775.11	DRY		
SH-07	10/29/02	1775.11	DRY		
SH-08	02/11/02	1763.25	10.63	1752.62	
SH-08	04/30/02	1763.25	DRY		
SH-08	08/06/02	1763.25	DRY		
SH-08	10/29/02	1763.25	DRY		
SH-09	02/11/02	1761.19	DRY		
SH-09	04/30/02	1761.19	DRY		
SH-09	08/06/02	1761.19	DRY		
SH-09	10/29/02	1761.19	DRY		
SH-10	02/11/02	1757.69	DRY		
SH-10	04/30/02	1757.69	DRY		
SH-10	08/06/02	1757.69	DRY		
SH-10	10/29/02	1757.69	DRY		
SH-11	02/11/02	1756.00	14.69	1741.31	
SH-11	04/30/02	1756.00	17.48	1738.52	
SH-11	08/06/02	1756.00	DRY		
SH-11	10/29/02	1756.00	DRY		
RS-01	02/12/02	1879.68	DRY		
RS-01	05/01/02	1879.68	DRY	***	
	J. J. 1. J.				
RS-01	08/07/02	1879.68	DRY		

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
		(feet above MSL)	(feet)	(feet above MSL)	
Shallow Wells					
RS-02	02/11/02	1901.08	DRY		
RS-02	04/29/02	1901.08	DRY		
RS-02	08/06/02	1901.08	DRY		
RS-02	10/29/02	1901.08	DRY		
RS-03	02/13/02	1834.22	DRY		
RS-03	04/29/02	1834.22	DRY		
RS-03	08/06/02	1834.22	DRY		
RS-03	10/29/02	1834.22	DRY		
RS-04	02/12/02	1826.56	DRY		
RS-04	04/29/02	1826.56	DRY		
RS-04	08/06/02	1826.56	DRY	***	
RS-04	10/29/02	1826.56	DRY		
RS-05	02/12/02	1783.73	DRY		
RS-05	04/29/02	1783.73	DRY		
RS-05	08/06/02	1783.73	DRY		
RS-05	10/29/02	1783.73	DRY	***	
RS-06	02/12/02	1757.43	DRY	***	
RS-06	04/30/02	1757.43	DRY		
RS-06	08/06/02	1757.43	DRY		
RS-06	10/28/02	1757.43	DRY		
RS-07	02/12/02	1732.27	4.42	1727.85	
RS-07	05/01/02	1732.27	DRY	*****	
RS-07	08/05/02	1732.27	DRY		
RS-07	10/28/02	1732.27	DRY	***	
RS-08	02/13/02	1821.57	8.05	1813.52	
RS-08	05/01/02	1821.57	9.05	1812.52	
RS-08	08/07/02	1821.57	12.67	1808.90	
RS-08	10/30/02	1821.57	DRY		
RS-09	02/13/02	1735.52	DRY		
RS-09	05/01/02	1735.52	DRY		
RS-09	08/07/02	1735.52	DRY		
RS-09	10/29/02	1735.52	DRY		
RS-10	02/12/02	1762.08	6.10	1755.98	
RS-10	05/01/02	1762.08	5.69	1756.39	
RS-10	08/07/02	1762.08	6.56	1755.52	
RS-10	10/30/02	1762.08	6.45	1755.63	
RS-11	02/12/02	1790.39	14.47	1775.92	
RS-11	04/30/02	1790.39	16.16	1774.23	
RS-11	08/06/02	1790.39	DRY		
RS-11	10/29/02	1790.39	DRY		
RS-12	02/11/02	1727.48	DRY	***	
RS-12	05/01/02	1727.48	DRY		
RS-12	08/07/02	1727.48	DRY		
RS-12	10/29/02	1727.48	DRY	***	
RS-13	02/12/02	1644.20	22.82	1621.38	
RS-13	04/30/02	1644.20	DRY		
RS-13	08/07/02	1644.20	19.00	1625.20	
RS-13	10/28/02	1644.20	DRY		

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Date of Measurement	Reference Point Elevation (feet above MSL)	Depth to Water	Static Water Level Elevation	Footnotes
Shallow Well	<u>'</u> s	(leet above MSL)	(feet)	(feet above MSL)	
RS-14	02/11/02	1734.78	DRY	***	
RS-14	05/01/02	1734.78	NM		
RS-14	08/07/02	1734.78	DRY		
RS-14	10/28/02	1734.78	DRY		
RS-15	02/11/02	1764.86	7.01	1757.85	
RS-15	04/30/02	1764.86	6.70	1758.16	
RS-15	08/07/02	1764.86	10.85	1754.01	
RS-15	10/28/02	1764.86	11.59	1753.27	
RS-16	02/11/02	1811.05	DRY	1133.21	-
RS-16	04/29/02	1811.05	DRY		=
RS-16	08/08/02	1811.05	DRY		
RS-16	10/28/02		DRY		
RS-17	02/11/02	1811.05 1766.52		1755.68	
RS-17	04/30/02	1766.52	10.84		
RS-17	08/07/02	•	12.65	1753.87	
RS-17	10/29/02	1766.52 1766.52	14.38	1752.14	
RS-18	02/11/02		15.42	1751.10	
RS-18	04/29/02	1802.86	10.43	1792.43	
RS-18	08/06/02	1802.86	13.29	1789.57	
RS-18	10/29/02	1802.86	DRY		
RS-10 RS-19	02/12/02	1802.86	DRY	***	
		1812.42	DRY		
RS-19	04/29/02	1812.42	DRY	****	
RS-19	08/06/02	1812.42	DRY		
RS-19	10/29/02	1812.42	DRY	4000 40	
RS-20	02/12/02	1823.77	20.35	1803.42	
RS-20	04/29/02	1823.77	DRY		
RS-20	08/06/02	1823.77	DRY	***	
RS-20	10/29/02	1823.77	DRY	4740.40	
RS-21	02/12/02	1767.36	24.18	1743.18	
RS-21	04/30/02	1767.36	DRY	*	•
RS-21	08/06/02	1767.36	DRY		
RS-21	10/29/02	1767.36	DRY		
RS-22	02/12/02	1771.23	25.82	1745.41	
RS-22	04/30/02	1771.23	27.34	1743.89	
RS-22	08/06/02	1771.23	29.62	1741.61	
RS-22	10/29/02	1771.23	31.17	1740.06	· · · · · · · · · · · · · · · · · · ·
RS-23	02/12/02	1887.25	DRY		
RS-23	04/29/02	1887.25	DRY		
RS-23	08/05/02	1887.25	DRY		
RS-23	10/28/02	1887.25	DRY		
RS-24	02/12/02	1809.24	DRY		
RS-24	04/30/02	1809.24	DRY		
RS-24	08/06/02	1809.24	DRY		
RS-24	10/29/02	1809.24	DRY		
RS-25	02/12/02	1862.71	DRY	4040.55	
RS-25	04/30/02	1862.71	14.68	1848.03	
RS-25	08/06/02	1862.71	DRY		
RS-25	10/29/02	1862.71	DRY		

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	Easter-A
ldentifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
Shallow Well	<u> </u>	(feet above MSL)	(feet)	(feet above MSL)	
RS-27	02/12/02	1804.78	DRY	·	
RS-27	04/29/02				
		1804.78	DRY		
RS-27	08/06/02	1804.78	DRY		
RS-27	10/28/02	1804.78	DRY		
RS-28	02/12/02	1768.59	DRY		
RS-28	04/30/02	1768.59	DRY		
RS-28	08/06/02	1768.59	DRY		
RS-28	10/29/02	1768.59	DRY		-
RS-29	02/12/02	1833.09	DRY		-
RS-29	04/30/02	1833.09	3 9.39	1793.70	
RS-29	08/06/02	1833.09	DRY		
RS-29	10/29/02	1833.09	DRY		
RS-30	02/11/02	1909.01	DRY		
RS-30	04/30/02	1909.01	DRY		
RS-30	08/06/02	1909.01	DRY	-	
RS-30	10/29/02	1909.01	DRY		
RS-31	02/11/02	1909.03	DRY		
RS-31	04/30/02	1909.03	DRY		
RS-31	08/06/02	1909.03	DRY	gramme.	
RS-31	10/29/02	1909.03	DRY		
RS-32	02/11/02	1908.99	16.74	1892.25	
RS-32	04/30/02	1908.99	DRY		
RS-32	08/06/02	1908.99	DRY		
RS-32	10/29/02	1908.99	DRY		
RS-54	02/13/02	1846.66	21.65	1825.01	
RS-54	05/02/02		45.00	1801.66	*
		1846.66			*
RS-54	08/02/02	1846.66	33.66	1813.00	*
RS-54	11/05/02	1846.66	29.10	1817.56	
ES-01	02/12/02	1782.20	22.58	1759.62	
ES-01	04/29/02	1782.20	23.72	1758.48	**
ES-01	08/05/02	1782.20	DRY	•	**
ES-01	11/04/02	1782.20	DRY		**
ES-02	02/12/02	1814.60	DRY	***	
ES-02	04/29/02	1814.60	DRY		
ES-02	08/08/02	1814.60	DRY		
ES-02	10/29/02	1814.60	DRY		
E\$-03	02/12/02	1783.39	DRY	•	
ES-03	04/29/02	1783.39	25.59	1757.80	
ES-03	08/02/02	1783.39	DRY		*
ES-03	11/05/02	1783.39	DRY		*
ES-04	02/12/02	1817.24	DRY		
ES-04	04/29/02	1817.24	DRY		
ES-04	08/02/02	1817.24	DRY		*
ES-04	11/05/02	1817.24	DRY	***	*
ES-05	02/12/02	1818.13	DRY		
ES-05	04/29/02	1818.13	DRY		
ES-05	08/02/02	1818.13	DRY		•
ES-05	11/05/02	1818.13	DRY		•

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Date of Measurement	Reference Point Elevation (feet above MSL)	Depth to Water (feet)	Static Water Level Elevation (feet above MSL)	Footnotes
Shallow Wells		(leet above MSL)	(leet)	(reet above MSL)	
ES-06	02/01/02	1825.41	20.38	1805.03	**
ES-06	04/29/02	1825.41	21.98	1803.43	
ES-06	08/05/02	1825.41	23.48	1801.93	**
ES-06	11/04/02	1825.41	DRY		**
ES-07	02/12/02	1826.53	DRY		
ES-07	04/29/02	1826.53	DRY .		
ES-07	08/02/02	1826.53	24.42	1802.11	*
ES-07	11/05/02	1826.53	DRY		*
ES-08	02/12/02	1826.60	DRY		
ES-08	04/29/02	1826.60	DRY		-
ES-08	08/06/02	1826.60	DRY		
ES-08	10/29/02	1826.60	DRY		
ES-09	02/12/02	1827.80	DRY		
ES-09	04/29/02	1827.80	DRY		
ES-09	08/06/02	1827.80	DRY		
ES-09	10/29/02	1827.80	DRY		
ES-10	02/12/02	1829.46	DRY		
ES-10	04/29/02	1829.46	DRY		
ES-10	08/06/02	1829.46	20.80	1808.66	
ES-10	10/29/02		DRY		
ES-10	02/12/02	1829.46	DRY		
		1835.07			
ES-11 ES-11	04/29/02	1835.07	DRY	***	•
ES-11	08/02/02	1835.07	DRY		•
ES-12	11/05/02	1835.07	DRY	4040.04	
ES-12 ES-12	02/12/02	1838.19	19.38	1818.81	
ES-12	04/29/02	1838.19	DRY		
	08/06/02	1838.19	DRY		
ES-12	10/29/02	1838.19	DRY	4700.00	
ES-13	02/12/02	1782.58	19.65	1762.93	
ES-13 ES-13	04/29/02	1782.58	20.44	1762.14	
ES-13	08/06/02 10/29/02	1782.58	20.16	1762.42	
		1782.58	21.34	1761.24	
ES-14 ES-14	02/11/02 05/01/02	1728.69 1738.60	24.49	1704.20	
	05/01/02 08/02/02	1728.69	24.75 DBV	1703.94	*
ES-14		1728.69	DRY		•
ES-14	11/05/02	1728.69	DRY		-
ES-15	02/11/02	1730.21	DRY		
ES-15	05/01/02	1730.21 1730.21	DRY		
ES-15	08/07/02	1730.21	DRY		
ES-15	10/29/02	1730.21	DRY		
ES-16	02/11/02	1737.90	DRY		
ES-16	05/01/02	1737.90	DRY		
ES-16	08/07/02	1737.90	DRY		
ES-16	10/29/02	1737.90	DRY	4704.70	
ES-17	02/11/02	1739.31	17.55	1721.76	
ES-17	04/30/02	1739.31	19.72	1719.59	•
ES-17	08/02/02	1739.31	24.64	1714.67	•
ES-17	11/05/02	1739.31	28.71	1710.60	#

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Date of Measurement	Reference Point Elevation	Depth to Water	Static Water Level Elevation	Footnotes
		(feet above MSL)	(feet)	(feet above MSL)	
Shallow Well					
ES-18	02/12/02	1770.25	26.41	1743.84	
ES-18	04/30/02	1770.25	DRY		
ES-18	08/04/02	1770.25	DRY		
ES-18	10/29/02	1770.25	DRY		
ES-19	02/12/02	1769.44	25.36	1744.08	
ES-19	04/30/02	1769.44	26.84	1742.60	
ES-1 9	08/04/02	1769.44	DRY	***	
ES-19	10/29/02	1769.44	DRY	***	
ES-20	02/12/02	1770.58	DRY		
ES-20	04/30/02	1770.58	DRY	***	
ES-20	08/04/02	1770.58	DRY		
ES-20	10/29/02	1770.58	DRY		
ES-21	02/12/02	1769.62	25.43	1744.19	
ES-21	04/30/02	1769.62	26.94	1742.68	
ES-21	08/05/02	1769.62	29.14	1740.48	**
ES-21	11/04/02	1769.62	30.69	1738.93	**
ES-22	02/12/02	1770.93	26.46	1744.47	
ES-22	04/30/02	. 1770.93	27.96	1742.97	•
ES-22	08/02/02	1770.93	25.22	1745.71	*
ES-22	11/05/02	1770.93	28.64	1742.29	*
ES-23	02/12/02	1760.73	9.87	1750.86	
ES-23	04/30/02	1760.73	10.79	1749.94	
ES-23	08/02/02	1760.73	12.16	1748.57	*
ES-23	11/05/02	1760.73	13.40	1747.33	*
ES-24	02/01/02	1728.67	27.08	1701.59	**
ES-24	05/01/02	1728.67	27.65	1701.02	
ES-24	08/05/02	1728.67	DRY		**
ES-24	11/04/02	1728.67	DRY		**
ES-25	02/11/02	1737.78	DRY		
ES-25	05/01/02	1737.78	DRY		
ES-25	08/07/02	1737.78	DRY	-	
ES-25	10/29/02	1737.78	DRY		
ES-26	02/11/02	1748.01	16.72	1731.29	
ES-26	04/30/02	1748.01	18.97	1729.04	
ES-26	08/02/02	1748.01	24.20	1723.81	*
ES-26	11/05/02	1748.01	30.11	1717.90	*
ES-27	02/11/02	1740.67	18.50	1722.17	
ES-27	05/01/02	1740.67	20.31	1720.36	
ES-27	08/02/02	1740.67	24.64	1716.03	*
ES-27	11/05/02	1740.67	28.68	1711.99	
ES-28	02/11/02	1759.15	8.95	1750.20	
ES-28	04/30/02	1759.15	9.70	1749.45	
ES-28	08/07/02	1759.15	9.70 11.00	1749.45 1748.15	
ES-28	10/28/02	1759.15	11.41	1746.15	
ES-20 ES-29	02/11/02	1760.47	9.59	1750.88	
ES-29 ES-29	04/30/02	1760.47	9.59 10.55	1750.88	
ES-29 ES-29	08/07/02	1760.47	10.55	1749.92 1748.59	
ES-29 ES-29					
25-29	10/28/02	1760.47	12.19	1748.28	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

	347-11	Data of	Reference Point	Depth	Static Water	······································
	Well	Date of	Elevation	to Water	Level Elevation	Footnotes
ES-30 02/12/02 1759.51 10.53 1748.98 ES-30 05/01/02 1759.51 11.10 1748.41 ES-30 08/02/02 1759.51 11.10 1748.41 ES-30 08/02/02 1759.51 12.21 1747.30 • ES-30 11/05/02 1759.51 14.10 1745.41 • ES-31 02/12/02 1767.01 16.38 1770.63 ES-31 04/30/02 1767.01 16.38 1770.63 ES-31 08/06/02 1767.01 19.28 1767.73 ES-31 10/29/02 1767.01 20.76 1760.25 ES-32 02/11/02 1740.65 21.74 1718.91 • ES-32 05/01/02 1740.65 DRY ES-32 05/01/02 1740.65 DRY ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-03 04/29/02 1866.38 DRY HAR-03 04/29/02 1875.48 21.35 1854.15 HAR-03 04/29/02 1875.48 21.35 1854.03 HAR-03 04/29/02 1875.48 DRY HAR-04 04/29/02 1873.40 20.62 1852.78 HAR-04 08/02/02 1873.40 20.62 1852.78 HAR-04 08/02/02 1873.40 20.62 1852.78 HAR-04 08/02/02 1873.40 21.60 1851.80 • HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 10/30/02 1827.90 11.16 1816.74 HAR-11 05/01/02 1827.90 11.64 1816.26 HAR-11 05/01/02 1827.90 11.66 1786.34 HAR-12 04/30/02 1796.73 11.05 1786.34 HAR-13 04/30/02 1801.81 18.83 1782.35 HAR-14 04/30/02 1796.03 15.50 1783.31 HAR-14 04/30/02 1796.03 15.50 1783.31 HAR-14 04/30/02 1796.03 15.50 1783.31 HAR-15 04/30/02 1809.69 11.18 17.90 17.90 11.18 1798.31	idenulier	Measurement	(feet above MSL)	(feet)	(feet above MSL)	
ES-30 0501/02 1759.51 11.10 1748.41 ES-30 08/02/02 1759.51 12.21 1747.30 • ES-31 17.05/02 1759.51 14.10 1745.41 • ES-31 17.05/02 1759.51 14.10 1775.41 • ES-31 02/12/02 1767.01 14.19 1772.82 ES-31 04/30/02 1767.01 16.38 1770.63 ES-31 04/30/02 1767.01 19.28 1767.73 ES-31 08/06/02 1787.01 19.28 1767.73 ES-31 10/29/02 1767.01 20.76 1766.25 ES-32 02/11/02 1740.65 21.74 1718.91 ES-32 05/01/02 1740.65 DRY — ES-32 05/01/02 1740.65 DRY — ES-32 05/01/02 1740.65 DRY — ES-32 11/05/02 1740.65 DRY — ES-32 11/05/02 1740.65 DRY — HAR-02 02/12/02 1886.38 DRY — HAR-02 04/30/02 1886.38 DRY — HAR-02 08/06/02 1886.38 DRY — HAR-03 06/06/02 1868.38 DRY — HAR-03 02/12/02 1868.38 DRY — HAR-03 02/12/02 1875.48 21.33 1854.15 HAR-03 04/29/02 1875.48 21.45 1854.03 HAR-03 04/29/02 1875.48 DRY — HAR-03 04/29/02 1875.48 DRY — HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 04/29/02 1873.40 20.90 1855.80 HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 04/29/02 1873.40 21.60 1851.80 • HAR-04 08/02/02 1873.40 21.60 1851.80 • HAR-04 08/02/02 1873.40 21.60 1851.80 • HAR-09 06/07/02 1820.62 10.97 1809.85 HAR-09 06/07/02 1820.62 10.96 1810.36 HAR-09 06/07/02 1820.62 10.97 1809.85 HAR-09 06/07/02 1820.62 10.97 1809.85 HAR-11 05/01/02 1827.90 11.64 1816.74 HAR-11 05/01/02 1827.90 11.64 1816.74 HAR-11 05/01/02 1827.90 11.64 1816.26 HAR-11 10/30/02 1796.73 10.39 1766.34 HAR-12 04/29/02 1796.73 10.39 1766.34 HAR-13 04/29/02 1796.73 13.96 1732.77 HAR-13 04/29/02 1796.73 13.96 1732.77 HAR-13 04/29/02 1796.73 13.96 1732.77 HAR-14 04/30/02 1801.18 14.66 1766.52 HAR-13 04/30/02 1796.73 13.90 1786.34 HAR-14 04/30/02 1801.18 14.66 1766.52 HAR-13 04/30/02 1797.02 11.32 1765.75 HAR-14 04/30/02 1797.02 11.32 1758.45 HAR-15 04/30/02 1809.69 11.18 1798.31	Shallow Wells					
ES-30 08/02/02 1759.51 12.21 1747.30 . ES-30 11/05/02 1769.51 14.10 1745.41 . ES-31 02/12/02 1767.01 14.19 1772.82 . ES-31 04/30/02 1767.01 16.38 1770.63 . ES-31 08/06/02 1767.01 16.38 1770.63 . ES-31 10/29/02 1767.01 20.76 1766.25 . ES-32 02/11/02 1740.65 21.74 1718.91 . ES-32 05/01/02 1740.65 DRY ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 01/30/02 1886.38 DRY HAR-03 02/12/02 1868.38 DRY HAR-03 02/12/02 1875.48 21.33 1854.15 . HAR-03 04/29/02 1875.48 DRY HAR-03 01/03/0/02 1875.48 DRY HAR-04 02/12/02 1873.40 20.62 1852.78 . HAR-04 02/12/02 1873.40 20.62 1852.50 . HAR-04 08/02/02 1873.40 20.90 1852.50 . HAR-04 08/02/02 1873.40 20.90 1852.50 . HAR-04 08/02/02 1873.40 21.60 1851.80 . HAR-04 08/02/02 1873.40 21.60 1851.80 . HAR-04 08/02/02 1873.40 21.60 1855.80 . HAR-04 08/02/02 1873.40 21.60 1851.80 . HAR-04 11/05/02 1873.40 21.60 1851.80 . HAR-09 02/13/02 1820.62 10.26 1810.36 . HAR-09 08/07/02 1820.62 10.97 1800.65 . HAR-09 08/07/02 1820.62 10.97 1800.65 . HAR-09 08/07/02 1820.62 10.97 1800.65 . HAR-09 08/07/02 1827.90 11.16 1816.74 . HAR-11 05/01/02 1827.90 11.16 1816.74 . HAR-11 05/01/02 1827.90 11.16 1816.74 . HAR-11 08/07/02 1827.90 11.64 1816.26 . HAR-13 04/30/02 1806.03 15.76 1812.14 . HAR-14 08/08/02 1796.73 13.96 1782.77 . HAR-13 04/30/02 1806.69 15.78 1785.35 . HAR-14 08/08/02 1796.73 13.90 1783.31 . HAR-15 04/30/02 1809.69 15.38 1794.31	ES-30	02/12/02	1759.51	10.53	1748.98	
ES-30 11/05/02 1759.51 14.10 1775.81 ES-31 02/12/02 1767.01 14.19 1772.82 ES-31 04/30/02 1767.01 16.38 1770.63 ES-31 08/06/02 1767.01 19.28 1767.73 ES-31 08/06/02 1767.01 19.28 1767.73 ES-31 08/06/02 1767.01 19.28 1767.73 ES-31 10/29/02 1767.01 19.28 1767.73 ES-32 02/11/02 1740.65 21.74 1718.91 ES-32 05/01/02 1740.65 DRY ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 01/05/02 1740.65 DRY ES-32 01/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-03 08/06/02 1886.38 DRY HAR-03 04/12/02 1875.48 21.33 1854.15 HAR-03 04/12/02 1875.48 21.33 1854.15 HAR-03 04/29/02 1875.48 DRY HAR-03 08/06/02 1875.48 DRY HAR-03 10/30/02 1875.48 DRY HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 08/02/02 1873.40 21.90 1851.80 HAR-04 08/02/02 1873.40 21.90 1851.80 HAR-04 08/02/02 1873.40 21.90 1851.80 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.97 1800.65 HAR-09 08/07/02 1820.62 10.97 1800.65 HAR-09 08/07/02 1820.62 10.97 1800.65 HAR-09 10/30/02 1827.90 11.16 1816.74 HAR-11 05/01/02 1827.90 11.64 1816.26 HAR-11 10/30/02 1827.90 11.64 1816.26 HAR-11 06/07/02 1827.90 11.64 1816.26 HAR-11 10/30/02 1827.90 11.66 1812.14 HAR-11 10/30/02 1827.90 11.64 1816.26 HAR-11 10/30/02 1827.90 11.66 1766.52 HAR-13 04/30/02 1796.73 13.96 1786.35 HAR-13 04/30/02 1796.73 13.90 1786.35 HAR-13 04/30/02 1796.73 13.90 1786.35 HAR-14 04/30/02 1797.02 13.90 1786.31 HAR-15 04/30/02 1809.69 17.56 11.18 1789.3	ES-30	05/01/02	1759.51	11.10	1748.41	
ES-31 02/12/02 1787.01 14.19 1772.82 ES-31 04/30/02 1787.01 16.38 1770.63 ES-31 08/06/02 1787.01 19.28 1767.73 ES-31 10/29/02 1787.01 20.76 1766.25 ES-32 02/11/02 1740.65 DRY	ES-30	08/02/02	1759.51	12.21	1747.30	*
ES-31 08/09/02 1787.01 16.38 1770.63 ES-31 08/06/02 1787.01 19.28 1767.73 ES-31 10/29/02 1787.01 19.28 1767.73 ES-32 02/11/02 1740.65 21.74 1718.91 ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY HAR-02 02/12/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 10/30/02 1886.38 DRY HAR-03 08/06/02 1875.48 21.33 1854.15 HAR-03 02/12/02 1875.48 21.33 1854.15 HAR-03 04/29/02 1875.48 21.45 1854.03 HAR-03 01/30/02 1875.48 DRY HAR-04 02/29/02 1875.48 DRY HAR-04 04/29/02 1873.40 20.62 1852.78 HAR-04 04/29/02 1873.40 20.62 1852.50 HAR-04 08/02/02 1873.40 21.60 1851.80 HAR-04 08/02/02 1873.40 21.60 1851.80 HAR-04 08/02/02 1873.40 21.51 1851.89 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.26 1816.36 HAR-09 05/01/02 1820.62 10.97 1809.65 HAR-09 10/30/02 1820.62 10.97 1809.65 HAR-09 10/30/02 1820.62 10.97 1809.65 HAR-09 10/30/02 1820.62 10.97 1809.65 HAR-11 02/13/02 1820.62 10.97 1809.65 HAR-11 05/01/02 1820.62 10.98 1809.69 HAR-13 05/02/02 1809.69 11.16 180.78 1780.31	ES-30	11/05/02	1759.51	14.10	1745.41	*
ES-31 08/06/02 1787.01 19.28 1767.73 ES-31 10/29/02 1787.01 20.76 1766.25 ES-32 02/11/02 1740.65 DRY ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 11/05/02 1786.38 DRY HAR-02 02/12/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 10/30/02 1886.38 DRY HAR-03 10/30/02 1875.48 21.33 1854.15 HAR-03 04/29/02 1875.48 21.45 1854.03 HAR-03 08/06/02 1875.48 DRY HAR-04 02/12/02 1875.48 DRY HAR-04 02/12/02 1873.40 DRY HAR-04 04/29/02 1873.40 20.62 1852.78 HAR-04 04/29/02 1873.40 21.60 1852.50 HAR-04 08/02/02 1873.40 21.60 1852.50 HAR-04 11/05/02 1873.40 21.60 1851.80 HAR-04 11/05/02 1873.40 21.60 1851.80 HAR-04 11/05/02 1873.40 21.60 1851.80 HAR-04 08/02/02 1873.40 21.60 1851.80 HAR-09 05/01/02 1820.62 10.26 1805.39 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 08/07/02 1820.62 10.97 1809.65 HAR-09 08/07/02 1820.62 10.97 1809.65 HAR-11 02/13/02 1820.62 10.97 1809.65 HAR-11 05/01/02 1827.90 11.16 1816.74 HAR-11 05/01/02 1827.90 11.66 1816.74 HAR-12 04/30/02 1796.73 11.05 1785.88 HAR-13 04/30/02 1796.73 11.05 1785.88 HAR-14 04/29/02 1796.73 11.05 1785.88 HAR-13 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1796.73 11.05 1785.88 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-15 04/30/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 11.18 1798.51	ES-31	02/12/02	1787.01	14.19	1772.82	
ES-31 10/29/02 1740.65 21.74 1718.91 ES-32 02/11/02 1740.65 21.74 1718.91 ES-32 05/01/02 1740.65 DRY ES-32 08/02/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY ES-32 11/05/02 1740.65 DRY HAR-02 02/12/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 08/06/02 1886.38 DRY HAR-02 10/30/02 1886.38 DRY HAR-03 02/12/02 1875.48 DRY HAR-03 04/29/02 1875.48 DRY HAR-03 08/06/02 1875.48 DRY HAR-03 10/30/02 1875.48 DRY HAR-04 02/12/02 1875.48 DRY HAR-04 02/12/02 1875.40 DRY HAR-04 02/12/02 1875.40 DRY HAR-04 02/12/02 1875.40 DRY HAR-04 02/12/02 1875.40 DRY HAR-04 02/12/02 1873.40 20.62 1852.78 HAR-04 04/29/02 1873.40 20.90 1852.50 HAR-04 04/29/02 1873.40 21.50 1851.80 HAR-04 04/29/02 1873.40 21.50 1851.80 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.97 1809.65 HAR-09 05/01/02 1820.62 10.97 1809.65 HAR-09 05/01/02 1820.62 13.93 1806.69 HAR-09 10/30/02 1820.62 15.23 1805.39 HAR-11 02/13/02 1827.90 11.16 1816.74 HAR-11 05/01/02 1827.90 11.64 1816.26 HAR-11 05/01/02 1827.90 15.76 1812.14 HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-13 02/12/02 1796.73 10.39 1786.34 HAR-13 04/30/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1801.18 14.44 1783.86 HAR-14 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1801.18 14.43 1786.75 HAR-14 04/30/02 1801.18 14.44 1798.51 HAR-15 04/30/02 1809.69 11.16 1798.31 HAR-15 04/30/02 1809.69 11.16 1798.31 HAR-15 04/30/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 11.18 1798.51	ES-31	04/30/02	1787.01	16.38	1770.63	
ES-32 02/11/02 1740.65 21.74 1718.91 ES-32 05/01/02 1740.65 DRY	ES-31	08/06/02	1787.01	19.28	1767.73	·
ES-32 08/02/02 1740.65 DRY	ES-31	10/29/02	1787.01	20.76	1766.25	
ES-32 11/05/02 1740.65 DRY * ES-32 11/05/02 1740.65 DRY * HAR-02 02/12/02 1886.38 DRY HAR-02 04/30/02 1886.38 DRY HAR-02 10/30/02 1886.38 DRY HAR-02 10/30/02 1886.38 DRY HAR-03 02/12/02 1875.48 21.33 1854.15 HAR-03 02/12/02 1875.48 21.33 1854.15 HAR-03 04/29/02 1875.48 DRY HAR-03 10/30/02 1875.48 DRY HAR-03 10/30/02 1875.48 DRY HAR-04 02/12/02 1875.48 DRY HAR-04 02/12/02 1873.40 20.62 1852.78 HAR-04 02/12/02 1873.40 20.62 1852.78 HAR-04 04/29/02 1873.40 21.60 1851.80 * HAR-04 11/05/02 1873.40 21.60 1851.80 * HAR-04 11/05/02 1873.40 21.51 1851.89 HAR-09 02/13/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.26 1810.36 HAR-09 05/01/02 1820.62 10.97 1809.65 HAR-09 08/07/02 1820.62 13.93 1806.69 HAR-09 10/30/02 1820.62 15.23 1805.39 HAR-11 02/13/02 1827.90 11.16 1816.74 HAR-11 08/07/02 1827.90 11.66 1816.74 HAR-11 08/07/02 1827.90 15.76 1812.14 HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-11 08/07/02 1827.90 15.76 1812.14 HAR-11 08/07/02 1827.90 15.76 1812.14 HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-12 08/06/02 1796.73 15.50 1781.23 HAR-13 08/06/02 1801.18 14.66 1786.55 HAR-13 08/06/02 1801.18 14.66 1786.55 HAR-13 08/06/02 1801.18 14.66 1786.55 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 02/12/02 1809.69 11.53 1799.31	ES-32	02/11/02	1740.65	21.74	1718.91	-
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HAR-11 05/01/02 1827.90 11.64 1816.26 HAR-11 08/07/02 1827.90 14.44 1813.46 HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-12 04/30/02 1796.73 11.05 1785.68 HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-11 08/07/02 1827.90 14.44 1813.46 HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-12 04/30/02 1796.73 11.05 1785.68 HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.93 HAR-15 04/30/02 1809.69 15.38 1794.31						
HAR-11 10/30/02 1827.90 15.76 1812.14 HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-12 04/30/02 1796.73 11.05 1785.68 HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.93 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02						
HAR-12 02/12/02 1796.73 10.39 1786.34 HAR-12 04/30/02 1796.73 11.05 1785.68 HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-12 04/30/02 1796.73 11.05 1785.68 HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-12 08/06/02 1796.73 13.96 1782.77 HAR-12 10/29/02 1796.73 15.50 1781.23 HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-13 02/12/02 1801.18 14.43 1786.75 HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31	HAR-12	10/29/02	1796.73	15.50	1781.23	
HAR-13 04/30/02 1801.18 14.66 1786.52 HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-13 08/06/02 1801.18 17.30 1783.88 HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-13 10/29/02 1801.18 18.83 1782.35 HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-14 02/12/02 1797.02 11.32 1785.70 HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-14 04/30/02 1797.02 11.57 1785.45 HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						· · · · · · · · · · · · · · · · · · ·
HAR-14 08/06/02 1797.02 13.90 1783.12 HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-14 10/29/02 1797.02 15.18 1781.84 HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-15 02/12/02 1809.69 11.18 1798.51 HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-15 04/30/02 1809.69 10.76 1798.93 HAR-15 08/06/02 1809.69 15.38 1794.31						
HAR-15 08/06/02 1809.69 15.38 1794.31						

TABLE 2
SUMMARY OF WATER LEVEL DATA, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	
wen Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
Mentanei	measurement	(feet above MSL)	(feet)	(feet above MSL)	
Shallow Well:	S				
HAR-27	02/12/02	1719.39	25.60	1693.79	
HAR-27	05/01/02	1719.39	26.28	1693.11	•
HAR-27	08/07/02	1719.39	26.68	1692.71	
HAR-27	10/29/02	1719.39	26.67	1692.72	
HAR-28	02/12/02	1720.17	26.31	1693.86	•
HAR-28	05/01/02	1720.17	26.68	1693.49	
HAR-28	08/07/02	1720.17	27.18	1692.99	
HAR-28	10/29/02	1720.17	27.92	1692.25	_
HAR-29	02/12/02	1724.13	29.10	1695.03	-
HAR-29	05/01/02	1724.13	29.57	1694.56	
HAR-29	08/07/02	1724.13	30.64	1693.49	
HAR-29	10/29/02	1724.13	30.97	1693.16	
HAR-30	02/11/02	1806.47	11.02	1795.45	
HAR-30	04/30/02	1806.47	10.96	1795.51	
HAR-30	08/06/02	1806.47	14.80	1791.67	
HAR-30	10/29/02	1806.47	DRY	***	
HAR-31	02/11/02	1812.45	13.73	1798.72	
HAR-31	04/30/02	1812.45	13.66	1798.79	
HAR-31	08/06/02	1812.45	19.51	1792.94	
HAR-31	10/29/02	1812.45	23.27	1789.18	
HAR-32	02/11/02	1736.58	20.43	1716.15	
HAR-32	05/01/02	1736.58	21.86	1714.72	
HAR-32	08/07/02	1736.58	30.34	1706.24	
HAR-32	10/28/02	1736.58	36.16	1700.42	
HAR-33	02/11/02	1744.66	19.63	1725.03	
HAR-33	04/30/02	1744.66	21.31	1723.35	
HAR-33	08/07/02	1744.66	27.84	1716.82	
HAR-33	10/28/02	1744.66	31.64	1713.02	
HAR-34	02/11/02	1751.17	15.70	1735.47	
HAR-34	04/30/02	1751.17	20.37	1730.80	
HAR-34	08/07/02	1751.17	DRY		
HAR-34	10/28/02	1751.17	DRY		

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point Elevation	Depth to Water	Static Water Level Elevation	Footnotes
Identifier	Measurement	(feet above MSL)	(feet)	(feet above MSL)	. 0000000
Chatsworth I	Formation Wells	(**************************************	. (0000)	(
RD-01	02/11/02	1935.89	214.93	1720.96	(C)
RD-01	04/30/01	1935.89	208.84	1727.05	(-)
RD-01	08/02/02	1935.89	210.22	1725.67	*
RD-01	11/05/02	1935.89	204.94	1730.95	*
RD-02	02/12/02	1873.92	178.09	1695.83	
RD-02	04/29/02	1873.92	176.78	1697.14	
RD-02	08/02/02	1873.92	178.11	1695.81	•
RD-02	11/05/02	1873.92	176.31	1697.61	•
RD-03	02/12/02	1743.50	12.62	1730.88	(C)
RD-03	05/01/02	1743.50	14.88	1728.62	_ (0)
RD-03	08/05/02	1743.50	17.08	1726.42	
RD-03	10/28/02	1743.50	19.42		
RD-03	02/19/02	1883.85	379.74	1724.08 1504.11	
RD-04 RD-04	05/01/02				
		1883.85	368.63	1515.22	
RD-04 RD-04	08/07/02	1883.85	360.65	1523.20	
RD-04 RD-05A	10/30/02 02/12/02	1883.85 1704.66	355.51 112.11	1528.34 1592.55	
RD-05A RD-05A					
	04/30/02	1704.66	102.53	1602.13	
RD-05A	08/07/02	1704.66	103.82	1600.84	
RD-05A	10/28/02	1704.66	106.95	1597.71	
RD-05B	02/12/02	1705.89	75.85	1630.04	
RD-05B	04/30/02	1705.89	76.04	1629.85	
RD-05B	08/07/02	1705.89	76.94	1628.95	
RD-05B	10/28/02	1705.89	77.26	1628.63	
RD-05C	02/12/02	1705.25	63.31	1641.94	
RD-05C	04/30/02	1705.25	63.40	1641.85	
RD-05C	08/07/02	1705.25	63.35	1641.90	
RD-05C	10/28/02	1705.25	63.14	1642.11	
RD-06	02/12/02	1617.21	46.58	1570.63	
RD-06	04/30/02	1617.21	48.15	1569.06	
RD-06	08/07/02	1617.21	50.07	1567.14	
RD-06	10/28/02	1617.21	51.12	1566.09	
RD-07	02/11/02	1812.82	85.61	1727.21	
RD-07	05/01/02	1812.82			(1)
RD-07	08/06/02	1812.82			(1)
RD-07	10/28/02	1812.82			(1)
RD-08	02/11/02	1763.38	13.57	1749.81	
RD-08	04/30/02	1763.38	12.79	1750.59	
RD-08	08/05/02	1763.38	14.53	1748.85	
RD-08	10/29/02	. 1763.38	15.95	1747.43	
RD-09	02/19/02	1768.20	26.67	1741.53	
RD-09	04/30/02	1768.20	27.98	1740.22	
RD-09	08/02/02	1768.20	29.31	1738.89	*
RD-09	11/05/02	1768.20	31.44	1736.76	*
RD-10	02/11/02	1904.43	193.79	1710.64	
RD-10	05/01/02	1904.43			(1)
RD-10	08/06/02	1904.43			(1)
RD-10	10/29/02	1904.43			(1)

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Data of	Reference Point	Depth	Static Water	
ldentifier	Date of Measurement	Elevation	to Water	Level Elevation	Footnotes
idelitille!	measurement	(feet above MSL)	(feet)	(feet above MSL)	
Chatsworth I	Formation Wells				
RD-11	02/11/02	1762.65	16.46	1746.19	
RD-11	04/30/02	1762.65	17.47	1745.18	
RD-11	08/05/02	1762.65	19.07	1743.58	
RD-11	10/29/02	1762.65	20.57	1742.08	
RD-12	02/11/02	1762.62	20.14	1742.48	
RD-12	04/30/02	1762.62	22.31	1740.31	
RD-12	08/05/02	1762.62	24.00	1738.62	
RD-12	10/29/02	1762.62	25.42	1737.20	-
RD-13	02/11/02	1840.27	51.99	1788.28	
RD-13	04/29/02	1840.27	53.11	1787.16	
RD-13	08/05/02	1840.27	54.58	1785.69	
RD-13	10/28/02	1840.27	55.91	1784.36	•
RD-14	02/11/02	1824.29	66.89	1757.40	
RD-14	04/30/02	1824.29	67.81	1756.48	
RD-14	08/06/02	1824.29	71.80	1752.49	
RD-14	10/29/02	1824.29	74.29	1750.00	
RD-15	02/13/02	1817.70	50.97	1766.73	
RD-15	04/30/02	1817.70	52.89	1764.81	
RD-15	08/06/02	1817.70	55.24	1762.46	
RD-15	10/29/02	1817.70	57.19	1760.51	
RD-16	02/12/02	1808.99	42.07	1766.92	
RD-16	04/30/02	1808.99	47.88	1761.11	
RD-16	08/06/02	1808.99	49.73	1759.26	
RD-16	10/29/02	1808.99	50.87	1758.12	
RD-17	02/12/02	1836.30	22.98	1813.32	
RD-17	04/30/02	1836.30	24.29	1812.01	
RD-17	08/06/02	1836.30	25.95	1810.35	
RD-17	10/29/02	1836.30	27.23	1809.07	
RD-18	02/11/02	1839.49	80.71	1758.78	
RD-18	04/30/02	1839.49	82.12	1757.37	
RD-18	08/06/02	1839.49	84.32	1755.17	
RD-18	10/29/02	1839.49	86.57	1752.92	
RD-19	02/12/02	1853.13	76.32	1776.81	
RD-19	04/30/02	1853.13	78.51	1774.62	
RD-19	08/06/02	1853.13	80.86	1772.27	
RD-19	10/29/02	1853.13	82.42	1770.71	
RD-20	02/11/02	1819.72	41.31	1778.41	
RD-20	04/29/02	1819.72	42.38	1777.34	(C)
RD-20	08/06/02	1819.72	43.10	1776.62	` '
RD-20	10/28/02	1819.72	44.13	1775.59	
RD-21	02/11/02	1866.96	84.75	1782.21	
RD-21	04/29/02	1866.96	85.71	1781.25	(C)
RD-21	08/02/02	1866.96	DRY	***	*
RD-21	11/05/02	1866.96	DRY		*
RD-22	02/11/02	1853.41	304.47	1548.94	
RD-22	04/29/02	1853.41	303.99	1549.42	(C)
RD-22	08/05/02	1853.41			(1)
RD-22	10/31/02	1853.41	UTM		• •

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
		(feet above MSL)	(feet)	(feet above MSL)	
	Formation Wells				
RD-23	02/13/02	1838.19	238.03	1600.16	
RD-23	04/29/02	1838.19	238.35	1599.84	(C)
RD-23	08/05/02	1838.19	236.44	1 601.75	
RD-23	10/29/02	1838.19	235.85	1602.34	
RD-24	02/12/02	1809.93	48.94	1760.99	
RD-24	04/29/02	1809.93	126.16	1683.77	(P)
RD-24	08/02/02	1809.93	88.61	1721.32	*
RD-24	11/05/02	1809.93	92.61	1717.32	*
RD-25	02/12/02	1810.76	145.02	1665.74	-
RD-25	04/29/02	1810.76	159.21	1651.55	
RD-25	08/02/02	1810.76	154.71	1656.05	*
RD-25	11/05/02	1810.76	155.24	1655.52	
RD-26	02/13/02	1880.39	106.11	1774.28	
RD-26	04/30/02	1880.39	108.02	1772.37	
RD-26	08/06/02	1880.39	110.81	1769.58	
RD-26	10/29/02	1880.39	113.15	1767.24	
RD-27	02/12/02	1841.67	52.84	1788.83	
RD-27	04/30/02	1841.67	53.86	1787.81	
RD-27	08/06/02	1841.67	55.48	1786.19	
RD-27	10/30/02	1841.67	56.53	1785.14	
RD-28	02/12/02	1810.92	61.43	1749.49	
RD-28	04/29/02	1810.92	121.77	1689.15	
RD-28	08/02/02	1810.92	123.35	1687.57	*
RD-28	11/05/02	1810.92	129.98	1680.94	*
RD-29	02/12/02	1806.29	15.55	1790.74	
RD-29	04/29/02	1806.29	17.13	1789.16	(C)
RD-29	08/06/02	1806.29	17.97	1788.32	
RD-29	10/28/02	1806.29	18.83	1787.46	
RD-30	02/12/02	1768.69	31.36	1737.33	
RD-30	04/30/02	1768.69	35.27	1733.42	
RD-30	08/06/02	1768.69	35.76	1732.93	
RD-30	10/29/02	1768.69	32.29	1736.40	
RD-31	02/11/02	1945.02			(1)
RD-31	05/01/02	1945.02			(1)
RD-31	08/06/02	1945.02			(1)
RD-31	10/31/02	1945.02			(1)
RD-32	02/11/02	1808.47	28.70	1779.77	
RD-32	05/01/02	1808.47	29.46	1779.01	
RD-32	08/07/02	1808.47	30.73	1777.74	
RD-32	10/29/02	1808.47	31.27	1777.20	
RD-33A	02/11/02	1792.97	208.99	1583.98	
RD-33A	04/29/02	1792.97	209.74	1583.23	
RD-33A	08/05/02	1792.97	210.51	1582.46	
RD-33A	10/29/02	1792.97	211.19	1581.78	
RD-33B	02/11/02	1793.21	289.73	1503.48	
RD-33B	04/29/02	1793.21	290.11	1503.10	(C)
RD-33B	08/05/02	1793.21	290.13	1503.08	V = /
RD-33B	10/29/02	1793.21	289.67	1503.54	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
Objetowenth	Formation Malla	(feet above MSL)	(feet)	(feet above MSL)	
	Formation Wells	4700 F.4	200.42	4500 44	
RD-33C	02/11/02	1793.54	290.13	1503.41	
RD-33C	04/29/02	1793.54	240.46	1553.08	
RD-33C	08/05/02	1793.54	290.61	1502.93	
RD-33C	10/29/02	1793.54	290.24	1503.30	
RD-34A	02/12/02	1761.83	52.46	1709.37	
RD-34A	04/30/02	1761.83	56.16	1705.67	
RD-34A	08/06/02	1761.83	56.14	1705.69	
RD-34A	10/29/02	1761.83	54.06	1707.77	
RD-34B	02/12/02	1762.51	71.75	1690.76	
RD-34B	04/30/02	1762.51	73.03	1689.48	
RD-34B	08/06/02	1762.51	69.57	1692.94	
RD-34B	10/29/02	1762.51	63.98	1698.53	
RD-34C	02/12/02	1762.60	16.61	1745.99	
RD-34C	04/30/02	1762.60	19.94	1742.66	
RD-34C	08/06/02	1762.60	20.93	1741.67	
RD-34C	10/29/02	1762.60	21.05	1741.55	
RD-35A	02/11/02	1906.68	78.38	1828.30	(C)
RD-35A	04/29/02	1906.68	80.15	1826.53	(C)
RD-35A	08/07/02 ·	1906.68	84.03	1822.65	
RD-35A	10/29/02	1906.68	85.41	1821.27	
RD-35B	02/19/02	1905.65	78.97	1826.68	(C)
RD-35B	05/01/02	1905.65	NM		• •
RD-35B	08/07/02	1905.65	82.47	1823.18	
RD-35B	10/29/02	1905.65	84.00	1821.65	
RD-36A	02/11/02	1913.09	92.91	1820.18	(C)
RD-36A	04/30/02	1913.09	93.48	1819.61	(c)
RD-36A	08/06/02	1913.09	DRY		(C)
RD-36A	10/29/02	1913.09	DRY		(-/
RD-36B	02/19/02	1915.26	133.44	1781.82	
RD-36B	04/30/02	1915.26	UTM	***	
RD-36B	08/06/02	1915.26	136.45	1778.81	(C)
RD-36B	10/29/02	1915.26	138.18	1777.08	(C)
RD-36C	02/11/02	1913.82	195.83	1717.99	(C)
RD-36C	04/30/02	1913.82	194.96	1718.86	(C)
RD-36C	08/06/02	1913.82	196.22	1717.60	(C)
RD-36C	10/29/02	1913.82	196.29	1717.53	(C)
RD-36D	02/11/02	1920.08	359.07	1561.01	(C)
RD-36D	04/30/02	1920.08	358.48	1561.60	(C)
RD-36D	08/06/02	1920.08	364.04	1556.04	(C)
RD-36D	10/29/02	1920.08	364.34	1555.74	(C)
RD-37	02/13/02	1870.01	329.17	1540.84	(C)
RD-37	05/01/02	1870.01	329.17	1549.80	(C)
RD-37	08/07/02	1870.01	327.28	1542.73	(0)
RD-37	10/31/02	1870.01	327.20 NM	1074.10	
RD-38A	02/11/02	1878.92	1 2141		(1)
RD-38A	05/01/02	1878.92			(1)
RD-38A	08/06/02	1878.92			(1)
RD-38A	10/29/02	1878.92			(1)

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	_
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
01-1		(feet above MSL)	(feet)	(feet above MSL)	
	Formation Wells 03/04/02	1001 15	326.29	1EEE 10	
RD-38B		1881.45		1555.16	
RD-38B	05/01/02	1881.45	326.57	1554.88	
RD-38B	08/06/02	1881.45	326.53	1554.92	
RD-38B	10/31/02	1881.45	326.78	1554.67	
RD-39A	02/11/02	1960.23			(1)
RD-39A	04/30/02	1960.23			(1)
RD-39A	08/06/02	1960.23			(1)
RD-39A	10/29/02	1960.23			(1)
RD-39B	02/11/02	1959.48	284.76	1674.72	(C)
RD-39B	04/30/02	1959.48	284.91	1674.57	(C)
RD-39B	08/06/02	1959.48	290.12	1669.36	(C)
RD-39B	10/29/02	1959.48	NM		
RD-40	02/12/02	1972.02	285.41	1686.61	
RD-40	04/30/02	1972.02	281.59	1690.43	
RD-40	08/06/02	1972.02	282.52	1689.50	
RD-40	10/28/02	1972.02	285.47	1686.55	
RD-41A	02/12/02	1774.48	32.16	1742.32	
RD-41A	04/30/02	1774.48	3 0.58	1743.90	
RD-41A	08/07/02	1774.48	30.74	1743.74	
RD-41A	10/29/02	1774.48	29.27	1745.21	
RD-41B	02/12/02	1774.71	131.54	1643.17	
RD-41B	04/30/02	1774.71	129.05	1645.66	
RD-41B	08/07/02	1774.71	131.92	1642.79	
RD-41B	10/29/02	1774.71	131.80	1642.91	
RD-41C	02/12/02	1773.73	158.51	1615.22	
RD-41C	04/30/02	1773.73	156.38	1617.35	
RD-41C	08/07/02	1773.73	152.88	1620.85	
RD-41C	10/29/02	1773.73	153.43	1620.30	
RD-42	02/12/02	1945.46	50.35	1895.11	
RD-42	04/30/02	1945.46	49.93	1895.53	
RD-42	08/06/02	1945.46	51.52	1893.94	
RD-42	10/28/02	1945.46	51.35	1894.11	
RD-43A	02/13/02	1680.16	50.20	1629.96	
RD-43A	05/01/02	1680.16	50.03	1630.13	
RD-43A	08/06/02	1680.16	52.54	1627.62	
RD-43A	10/30/02	1680.16	52.73	1627.43	
RD-43B	02/13/02	1680.21	96.05	1584.16	
RD-43B	05/01/02	1680.21	95.40	1584.81	
RD-43B	08/06/02	1680.21	95. 4 0 95.98	1584.23	
RD-43B	10/30/02	1680.21	95.89	1584.32	
RD-43C	02/13/02	1679.31	99.37	1579.94	
RD-43C RD-43C	05/01/02	1679.31	99.37 98.90	1579.94	
RD-43C RD-43C	08/ 12/0 2	1679.31	90.90 99.50	1579.81	
RD-43C	10/30/02	1679.31	99.52	1579.79	
RD-44	02/12/02	2035.92	411.88	1624.04	
RD-44	04/29/02	2035.92	411.00	1624.92	
RD-44	08/05/02	2035.92	414.59	1621.33	
RD-44	10/28/02	2035.92	413.88	1622.04	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

M/-H	D-4 6	Reference Point	Depth	Static Water	
Well	Date of	Elevation	to Water	Level Elevation	Footnotes
Identifier	Measurement	(feet above MSL)	. (feet)	(feet above MSL)	
Chatsworth	Formation Wells				
RD-45A	02/11/02	1841.59			(1)
RD-45A	04/29/02	1841.59			(1)
RD-45A	08/06/02	1841.59			(1)
RD-45A	10/30/02	1841.59	UTM	***	
RD-45B	02/12/02	1840.09	321.98	1518.11	
RD-45B	04/29/02	1840.09	317.84	1522.25	
RD-45B	08/06/02	1840.09	316.19	1523.90	
RD-45B	10/29/02	1840.09	312.15	1527.94	-
RD-45C	02/12/02	1835.74	311.39	1524.35	(C)
RD-45C	04/29/02	1835.74	308.60	1527.14	, ,
RD-45C	08/06/02	1835.74	306.59	1529.15	
RD-45C	10/29/02	1835.74	302.25	1533.49	
RD-46A	02/12/02	1805.80	74.95	1730.85	
RD-46A	04/29/02	1805.80	76.94	1728.86	
RD-46A	08/05/02	1805.80	79.47	1726.33	
RD-46A	12/28/02	1805.80	81.52	1724.28	
RD-46B	02/12/02	1807.19	65.19	1742.00	
RD-46B	04/29/02	1807.19	67.00	1740.19	
RD-46B	08/05/02	1807.19	69.81	1737.38	
RD-46B	10/28/02	1807.19	71.81	1735.38	
RD-47	02/13/02	2045.72	526.64	1519.08	
RD-47	05/01/02	2045.72	521.71	1524.01	
RD-47	08/12/02	2045.72	516.28	1529.44	
RD-47	10/30/02	2045.72	512.77	1532.95	
RD-48A	02/12/02	1736.54	92.84	1643.70	
RD-48A	04/30/02	1736.54	104.62	1631.92	
RD-48A	08/06/02	1736.54	107.31	1629.23	
RD-48A	10/28/02	1736.54	107.73	1628.81	
RD-48B	02/12/02	1735.40	134.23	1601.17	
RD-48B	04/30/02	1735.40	134.00	1601.40	
RD-48B	08/06/02	1735.40	134.68	1600.72	
RD-48B	10/28/02	1735.40	134.81	1600.59	
RD-48C	02/12/02	1734.95	181.21	1553.74	
RD-48C	04/30/02	1734.95	180.22	1554.73	
RD-48C	08/06/02	1734.95	180.96	1553.99	
RD-48C	10/28/02	1734.95	180.70	1554.25	
RD-49A	02/12/02	1867.25	14.39	1852.86	
RD-49A	05/01/02	1867.25	14.50	1852.75	
RD-49A	08/06/02	1867.25	16.03	1851.22	
RD-49A	10/30/02	1867.25	16.76	1850.49	
RD-49B	02/12/02	1867.95	268.18	1599.77	
RD-49B	05/01/02	1867.95	268.16	1599.77	•
RD-49B	08/06/02	1867.95	267.86	1600.09	
RD-49B	10/30/02	1867.95	267.42	1600.53	
RD-49C	02/12/02	1869.45	343.59	1525.86	
RD-49C	05/01/02	1869.45	338.82	1530.63	
RD-49C	08/07/02	1869.45	332.39	1537.06	
RD-49C	10/30/02	1869.45		1540.89	
1/0-730	TOTOTOL	1003.40	328.56	1070.03	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water	_
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
Objects we odly f		(feet above MSL)	(feet)	(feet above MSL)	
RD-50	Formation Wells 02/11/02	1914.88	105 70	4000 40	
RD-50	04/29/02		105.70	1809.18	
		1914.88	108.35	1806.53	
RD-50	08/05/02	1914.88	109.44	1805.44	
RD-50	10/28/02	1914.88	111.88	1803.00	
RD-51A	02/12/02	1832.51	250.88	1581.63	
RD-51A	04/30/02	1832.51	250.94	1581.57	
RD-51A	08/06/02	1832.51	250.98	1581.53	
RD-51A	10/29/02	1832.51	250.99	1581.52	
RD-51B	02/12/02	1832.68	312.91	1519.77	•
RD-51B	04/30/02	1832.68	320.34	1512.34	
RD-51B	08/06/02	1832.68	308.09	1524.59	
RD-51B.	10/29/02	1832.68	305.58	1527.10	
RD-51C	02/12/02	1831.65	316.36	1515.29	
RD-51C	04/30/02	1831.65	312.21	1519.44	
RD-51C	08/06/02	1831.65	307.53	1524.12	
RD-51C	10/29/02	1831.65	303.64	1528.01	
RD-52A	02/12/02	1755.09	127.11	1627.98	
RD-52A	04/30/02	1755.09	127.15	1627.94	
RD-52A	08/07/02	1755.09	127.49	1627.60	
RD-52A	10/30/02	1755.09	129.25	1625.84	
RD-52B	02/12/02	1712.15	196.92	1515.23	
RD-52B	04/30/02	1712.15	192.97	1 519.18	
RD-52B	08/07/02	1712.15	187.96	1524.19	
RD-52B	10/30/02	1712.15	184.35	1527.80	
RD-52C	02/12/02	1712.83	197.31	1515.52	
RD-52C	04/30/02	1712.83	193.63	1519.20	
RD-52C	08/07/02	1712.83	188.10	1524.73	
RD-52C	10/30/02	1712.83	184.87	1527.96	
RD-53	02/11/02	1909.19			(1)
RD-53	04/30/02	1909.19			(1)
RD-53	08/06/02	1909.19			(1)
RD-53	10/29/02	1909.19			(1)
RD-54A	02/13/02	1841.72	154.28	1687.44	(C)
RD-54A	04/29/02	1841.72	UTM		
RD-54A	08/06/02	1841.72	157.02	1684.70	
RD-54A	10/29/02	1841.72	159.61	1682.11	
RD-54B	02/11/02	1842.54	247.36	1595.18	
RD-54B	04/29/02	1842.54	247.24	1595.30	(C)
RD-54B	08/06/02	1842.54	241.14	1601.40	` '
RD-54B	10/29/02	1842.54	238.55	1603.99	
RD-54C	02/11/02	1843.77	225.85	1617.92	
RD-54C	04/29/02	1843.77	UTM		
RD-54C	08/06/02	1843.77	226.93	1616.84	
RD-54C	10/29/02	1843.77	227.21	1616.56	
RD-55A	02/11/02	1756.87	21.41	1735.46	
RD-55A	04/30/02	1756.87	25.46	1731.41	
	0-11-00/02				
RD-55A	08/07/02	1756.87	35.92	1720.95	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Weil	Date of	Reference Point	Depth	Static Water	TO THE COLUMN
Identifier	Measurement	Elevation	to Water	Level Elevation	Footnotes
		(feet above MSL)	(feet)	(feet above MSL)	
	ormation Wells	<u></u>			
RD-55B	02/11/02	1757.19	52.55	1704.64	
RD-55B	04/30/02	1757.19	5 3.50	1703.69	
RD-55B	08/07/02	1757.19	57.21	1699.98	
RD-55B	10/28/02	1757.19	60.46	1696.73	
RD-56A	02/11/02	1758.62	322.85	1435.77	
RD-56A	05/10/02	1758.62	322.78	1435.84	
RD-56A	08/06/02	1758.62	325.90	1432.72	
RD-56A	10/29/02	1758.62	327.03	1431.59	-
RD-56B	02/11/02	1761.83	241.91	1519.92	
RD-56B	05/09/02	1761.83	239.26	1522.57	
RD-56B	08/06/02	1761.83	237.17	1524.66	
RD-56B	10/29/02	1761.83	234.49	1527.34	
RD-57	02/12/02	1774.15	353.22	1420.93	****
RD-57	04/29/02	1774.15	355.39	1418.76	(C)
RD-57	08/05/02	1774.15	353.90	1420.25	, ,
RD-57	10/29/02	1774.15			(1)
RD-58A	02/11/02	1756.11	86.75	1669.36	
RD-58A	04/30/02	1756.11	86.87	1669.24	
RD-58A	08/07/02	1756.11	88.08	1668.03	
RD-58A	10/28/02	1756.11	88.42	1667.69	
RD-58B	02/11/02	1761.34	114.37	1646.97	
RD-58B	04/30/02	1761.34	112.09	1649.25	
RD-58B	08/07/02	1761.34	112.85	1648.49	
RD-58B	10/28/02	1761.34	114.18	1647.16	
RD-58C	02/11/02	1759.59	132.63	1626.96	
RD-58C	04/30/02	1759.59	129.57	1630.02	
RD-58C	08/07/02	1759.59	130.30	1629.29	
RD-58C	10/28/02	1759.59	131.43	1628.16	
RD-59A	02/28/02	1340.50	25.96	1314.54	
RD-59A	05/02/02	1340.50	25.48	1315.02	
RD-59A	08/08/02	1340.50	27.14	1313.36	
RD-59A	11/12/02	1340.50	26.28	1314.22	
RD-59B	02/28/02	1342.49	-25.07	1367.56	(A)
RD-59B	05/02/02	1342.49	-22.76	1365.25	(A)
RD-59B	08/08/02	1342.49	-36.60	1379.09	(A)
RD-59B	11/12/02	1342.49	-52.75	1395.24	(A)
RD-59C	02/28/02	1345.41	-20.45	1365.86	(A)
RD-59C	05/02/02	1345.41	-23.34	1368.75	(A)
RD-59C	08/08/02	1345.41	-36.60	1382.01	(A)
RD-59C	11/12/02	1345.41	-50.00 -52.75	1398.16	(A)
RD-60	02/11/02	1870.40	85.79	1784.61	(7)
RD-60	04/30/02	1870.40	87.59	1782.81	
RD-60	08/06/02	1870.40	90.39	1780.01	
RD-60	10/29/02	1870.40	90.39	1776.03	
RD-61	02/12/02	1843.88	103.40	1740.48	
RD-61	04/29/02	1843.88	103.40	1739.22	
RD-61	08/05/02	1843.88	104.00	1738.02	
170-01	10/28/02	1843.88	105.66	1736.93	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Date of Measurement	Reference Point Elevation	Depth to Water	Static Water Level Elevation	Footnotes
		(feet above MSL)	(feet)	(feet above MSL)	
	Formation Wells			* * * * * * * * * * * * * * * * * * * *	
RD-62	02/12/02	1837.20	207.86	1629.34	
RD-62	04/30/02	1837.20	206.98	1630.22	
RD-62	08/06/02	1837.20	209.19	1628.01	
RD-62	10/28/02	1837.20	209.41	1627.79	
RD-63	02/12/02	1764.85	108.22	1656.63	(P)
RD-63	04/30/02	1764.85	80.46	1684.39	(P)
RD-63	08/02/02	1764.85	55.34	1709.51	*
RD-63	11/05/02	1764.85	51.95	1712.90	•
RD-64	02/11/02	1857.04	230.65	1626.39	-
RD-64	05/01/02	1857.04			(1)
RD-64	08/06/02	1857.04			(1)
RD-64	10/29/02	1857.04			(1)
RD-65	02/11/02	1819.14	226.62	1592.52	
RD-65	04/29/02	1819.14	226.76	1592.38	(C)
RD-65	08/06/02	1819.14	226.58	1592.56	` '
RD-65	10/29/02	1819.14			(1)
RD-66	02/11/02	1730.79			(1)
RD-66	04/30/02	1730.79			(1)
RD-66	08/06/02	1730.79	174.64	1556.15	(C)
RD-66	10/29/02	1730.79	175.02	1555.77	\- /
RD-67	02/12/02	1901.71	54.22	1847.49	
RD-67	04/30/02	1901.71	56.21	1845.50	
RD-67	08/06/02	1901.71	58.75	1842.96	
RD-67	10/28/02	1901.71	60.45	1841.26	
RD-68A	02/28/02	1307.64	0.00	1307.64	(A)
RD-68A	05/02/02	1307.64	0.00	1307.64	(A)
RD-68A	08/08/02	1307.64	0.00	1307.64	(A)
RD-68A	11/12/02	1307.64	0.00	1307.64	(A)
RD-68B	02/28/02	1312.44	0.00	1312.44	(A)
RD-68B	05/02/02	1312.44	0.00	1312.44	(A) (A)
RD-68B	08/08/02	1312.44	0.00	1312.44	(A) (A)
RD-68B	11/12/02	1307.64	0.00	1307.64	(A)
RD-69	02/12/02	1831.28	50.21	1781.07	(^/
RD-69	04/30/02	1831.28	50.21 52.46	1778.82	
RD-69	08/07/02	1831.28	54.73	1776.55	
RD-69	10/30/02				
RD-09 RD-70	02/13/02	1831.28	56.80 212.55	1774.48	
		1732.26		1519.71	
RD-70	04/30/02	1732.26	209.97	1522.29	
RD-70	08/06/02	1732.26	207.76	1524.50	
RD-70	10/30/02	1732.26	205.31	1526.95	(1)
RD-71	02/11/02	1740.02			(1)
RD-71	04/30/02	1740.02	404.00	4555 CC	(1)
RD-71	08/06/02	1740.02	184.36	1555.66	(C)
RD-71	10/29/02	1740.02	184.71	1555.31	(C)
RD-72	02/11/02	1907.25			(1)
RD-72	04/30/02	1907.25			(1)
RD-72	08/06/02	1907.25			(1)
RD-72	10/29/02	1907.25			(1)

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth to Weter	Static Water	Factor-to-
ldentifier	Measurement	Elevation (feet above MSL)	to Water	Level Elevation (feet above MSL)	Footnotes
Chatsworth F	Formation Wells	(leet above MSL)	(feet)	(leet above MSL)	## <u>**</u>
RD-73	02/11/02	1901.60			(1)
RD-73	04/30/02	1901.60			(1)
RD-73	08/06/02	1901.60			(1)
RD-73	10/29/03	1901.60			(1)
RD-74	02/11/02	1810.90	DRY		(C)
RD-74	04/29/02	1810.90	DRY		(0)
RD-74	08/06/02	1810.90	DRY		
RD-74	10/28/02	1810.90			_
HAR-01	02/11/02	1874.13	DRY		- /4\
					(1)
HAR-01	04/30/02	1874.13			(1)
HAR-01	08/06/02	1874.13			(1)
HAR-01	10/30/02	1874.13	47.00	4704.75	(1)
HAR-05	02/12/02	1812.65	17.90	1794.75	
HAR-05	04/30/02	1812.65	18.08	1794.57	
HAR-05	08/06/02	1812.65	21.59	1791.06	
HAR-05	10/29/02	1812.65	24.71	1787.94	
HAR-06	02/12/02	1815.03	16.45	1798.58	
HAR-06	04/30/02	1815.03	16.55	1798.48	
HAR-06	08/06/02	1815.03	22.75	1792.28	
HAR-06	10/29/02	1815.03	25.23	1789.80	
HAR-07	02/12/02	1728.38	80.40	1647.98	
HAR-07	05/01/02	1728.38	80.23	1648.15	
HAR-07	08/02/02	1728.38	80.64	1647.74	•
HAR-07	11/05/02	1728.38	80.04	1648.34	*
HAR-08	02/12/02	1730.75	50.67	1680.08	
HAR-08	05/01/02	1730.75	48.25	1682.50	
HAR-08	08/07/02	1730.75	46.93	1683.82	
HAR-08	10/29/02	1730.75	46.61	1684.14	
HAR-16	02/11/02	1872.31			(1)
HAR-16	05/01/02	1872.31			(1)
HAR-16	08/06/02	1872.31			(1)
HAR-16	10/30/02	1872.31			(1)
HAR-17	02/12/02	1711.59	37.64	1673.95	
HAR-17	05/01/02	1711.59	24.85	1686.74	
HAR-17	08/02/02	1711.59	80.90	1630.69	*
HAR-17	11/05/02	1711.59	56.35	1655.24	*
HAR-18	02/11/02	1749.41	54.35	1695.06	
HAR-18	04/30/02	1749.41	40.37	1709.04	
HAR-18	08/02/02	1749.41	62.85	1686.56	•
HAR-18	11/05/02	1749.41	44.96	1704.45	*
HAR-19	02/12/02	1833.42	DRY		
HAR-19	05/01/02	1833.42	DRY		
HAR-19	08/07/02	1833.42	DRY		
HAR-19	10/30/02	1833.42	DRY		_
HAR-20	02/13/02	1830.47	222.89	1607.58	
HAR-20	05/01/02	1830.47	DRY		
HAR-20	08/07/02	1830.47	DRY	•	
HAR-20	10/30/02	1830.47	DRY	***	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Date of Measurement	Reference Point Elevation	Depth to Water	Static Water Level Elevation	Footnotes	
identifier	Measurement	(feet above MSL)	(feet)	(feet above MSL)		
Chatsworth	Formation Wells					
HAR-21	02/13/02	1821.30	7.00	1814.30		
HAR-21	05/01/02	1821.30	8.05	1813.25		
HAR-21	08/07/02	1821.30	12.41	1808.89	•	
HAR-21	10/30/02	1821.30	13.73	1807.57		
HAR-22	02/12/02	1816.41	25.85	1790.56	(C)	
HAR-22	04/30/02	1816.41	26.77	1789.64		
HAR-22	08/05/02	1816.41	29.95	1786.46		
HAR-22	10/29/02	1816.41	32.61	1783.80		
HAR-23	02/11/02	1805.87	19.64	1786.23	-	
HAR-23	04/30/02	1805.87	18.78	1787.09		
HAR-23	08/06/02	1805.87	21.48	1784.39		
HAR-23	10/29/02	1805.87	22.87	1783.00		
HAR-24	02/11/02	1906.89			(1)	
HAR-24	04/30/02	1906.89			(1)	
HAR-24	08/06/02	1906.89			(1)	
HAR-24	10/30/02	1906.89			(1)	
HAR-25	02/11/02	1889.75	60.70	1829.05	(C)	
HAR-25	04/29/02	1889.75	62.79	1826.96	(C)	
HAR-25	08/06/02	1889.75	65.11	1824.64	(C)	
HAR-25	10/30/02	1889.75	66.17	1823.58	(C)	
HAR-26	02/11/02	1763.23	20.57	1742.66		
HAR-26	04/30/02	1763.23	23.13	1740.10		
HAR-26	08/05/02	1763.23	24.30	1738.93		
HAR-26	10/29/02	1763.23	25.60	1737.63		
WS-04A	02/12/02	1749.77	232.43	1517.34		
WS-04A	05/01/02	1749.77	228.05	1521.72	`	
WS-04A	08/07/02	1749.77	224.92	1524.85		
WS-04A	10/30/02	1749.77	221.79	1527.98		
WS-05	02/12/02	1830.20	306.23	1523.97	(C)	
WS-05	04/29/02	1830.20	301.00	1529.20	(C)	
WS-05	08/02/02	1830.20	303.13	1527.07	*	
WS-05	11/05/02	1830.20	297.33	1532.87	*	
WS-06	02/13/02	1932.72	417.73	1514.99		
WS-06	05/01/02	1932.72	413.52	1519.20		
WS-06	08/07/02	1932.72	408.35	1524.37		
WS-06	10/30/02	1932.72	404.35	1528.37		
WS-07	02/12/02	1826.19	60.52	1765.67	(C)	
WS-07	04/30/02	1826.19	62.58	1763.61	(0)	
WS-07	08/06/02	1826.19	64.88	1761.31		
WS-07 WS-07	10/29/02	1826.19	66.79	1759.40		
NS-08	02/11/02	1794.39	182.03	1612.36		
WS-08	05/01/02	1794.39	NM	1012.00		
WS-08	08/08/02	1794.39	179.86	1614.53		
WS-08	10/30/02	1794.39	179.06	1618.33		
WS-09	02/13/02	1883.99	458.85	1425.14	(P)	
ws-09 WS-09	05/01/02	1883.99	456.65 377.68	1506.31	(C)	
					*	
WS-09 WS-09	03/01/02 08/02/02 11/05/02	1883.99 1883.99	363.12 358.26	1520.87 1525.73	*	

TABLE 2 SUMMARY OF WATER LEVEL DATA, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	Date of	Reference Point	Depth	Static Water		
Identifier	Measurement	Elevation (feet above MSL)	to Water (feet)	Level Elevation (feet above MSL)	Footnotes	
Chatsworth I	Formation Wells					
WS-09A	02/12/02	1647.61	38.81	1608.80	(P)	
WS-09A	04/30/02	1647.61	40.45	1607.16	(P)	
WS-09A	08/02/02	1647.61	54.61	1593.00	*	
WS-09A	11/05/02	1647.61	56.38	1591.23	*	
WS-09B	02/12/02	1796.89	166.80	1630.09	(C)	
WS-09B	05/01/02	1796.89	170.82	1626.07		
WS-09B	08/07/02	1796.89	176.23	1620.66		
WS-09B	10/30/02	1796.89	176.90	1619.99		
WS-11	02/11/02	1748.70	49.20	1699.50		
WS-11	05/01/02	1748.70	50.38	1698.32		
WS-11	08/07/02	1748.70	5 5.57	1693.13		
WS-11	10/29/02	1748.70	59.36	1689.34		
WS-12	02/12/02	1705.98	190.36	1515.62	(C)	
WS-12	04/30/02	1705.98	186.31	1519.67		
WS-12	08/07/02	1705.98	181.51	1524.47		
WS-12	11/04/02	1705.98	177.46	1528.52		
WS-13	02/12/02	1658.62	143.36	1515.26		
WS-13	04/30/02	1658.62	139.33	1519.29		
WS-13	08/07/02	1658.62	134.51	1524.11		
WS-13	10/29/02	1658.62	130.55	1528.07		
WS-14	02/11/02	1878.23	344.05	1534.18	(C)	
WS-14	05/01/02	1878.23	357.69	1520.54		
WS-14	08/06/02	1878.23	NM			
WS-14	10/30/02	1878.23	359.78	1518.45		
WS-SP	02/12/02	1766.76	25.14	1741.62		
WS-SP	04/30/02	1766.76	26.65	1740.11		
WS-SP	08/06/02	1766.76	27.50	1739.26		
WS-SP	10/29/02	1766.76	29.64	1737.12		
OS-24	02/11/02	1947.30			(1)	
OS-24	05/01/02	1947.30			(1)	
OS-24	08/06/02	1947.30			(1)	
OS-24	10/29/02	1947.30			(1)	
OS-25	02/11/02	2043.58	DRY			
OS-25	04/30/02	2043.58	DRY	***		
OS-25	08/06/02	2043.58	DRY			
OS-25	10/29/02	2043.58	DRY			
OS-26	02/11/02	2080.58	212.31	1868.27		
OS-26	05/08/02	2080.58	215.00	1865.58		
OS-26	08/06/02	2080.58	216.48	1864.10		
OS-26	10/29/02	2080.58	220.39	1860.19		

(*) =	Water level measured by EnviroSolve Corporation.
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- (**) = Water level measured by Montgomery Watson Harza.
- (A) = Artesian.
- (C) = Depth to water measured from top of casing. During the monitoring period, pumps had been removed from several wells to allow hydrogeologic testing.
- (ft btc) = Feet below top of casing.
- (P) Pumping water level.
- MSL = Mean Sea Level.
- NM = Not monitored.
- UTM = Unable to measure.
- (---) = No data available/not applicable.

A negative value in the Depth to Water column indicates the head above the reference point elevation.

= FLUTe installed in well. Water level could not be measured. Water levels recorded by dataloggers at saturated ports were provided by Montgomery Watson Harza for the following wells:

Well	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)			
RD-07	05/02	No datalogo	ger installed :	2nd quarter 2002				
	08/02	No datalogo	ger installed	3rd quarter 2002				
	11/02	No datalogo	ger installed	th quarter 2002				
RD-10	05/02	No datalogo	ger installed :	2nd quarter 2002				
	08/02	Data not do	wnloaded fro	m datalogger 3rd qua	rter 2002			
	11/02	Data not do	wnloaded fro	m datalogger 4th qua	rter 2002			
RD-22	08/02	FLUTe insta	allation in pro	gress 3rd quarter 200	2			
	11/02	FLUTe insta	allation in pro	gress 4th quarter 200	2			
RD-31	02/02	9:25	3	88 - 98	Dry			
			4	108 - 118	Dry			
			5	128 - 138	118.812			
			6	148 - 158	118.881			
		1	7 168 - 178 118.345					
	05/02	Data could	not be retriev	ed from datalogger 2r	nd quarter 2002			
	08/02	Data could	not be retriev	ed from datalogger 3r	d quarter 2002			

Well	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
RD-31	10/02	12:08	3	88 - 98	
			4	108 - 118	
			5	128 - 138	124.026
İ			6	148 - 158	124.081
1			7	168 - 178	123.536
RD-38A	02/02	8:16	9	. 93 - 98	Dry
			10	103 - 108	98.541
		1	11	113 - 118	98.568
	05/02	8:16	9	93 - 98	Dry-
j		1	10	103 - 108	99.683
			11	113 - 118	99.711
Γ	08/02	8:16	9	93 - 98	Dry
			10	103 - 108	101.648
		-	11	113 - 118	101.692
	10/02	14:16	9	93 - 98	Dry
			10	103 - 108	103.54
			11	113 - 118	103.587
RD-39A	02/02	13:09	4	124 - 129	Dry
1			5	134 - 139	Dry
			6	144 - 149	142.035
		-	7	154 - 159	142.086
ľ	04/02	13:09	4	124 - 129	Dry
		1	5	134 - 139	Dry
1		j	6	144 - 149	143.549
			7	154 - 159	143.652
ľ	08/02	Data not do	wnloaded fro	m datalogger 3rd qua	1
F	10/02	13:09	4	124 - 129	
Ī			5	134 - 139	
			6	144 - 149	146.26
		1	7	154 - 159	148.163
RD-45A	02/02	12:00	8	326 - 336	319.89
		12:16	9	346 - 356	319.905
1			10	366 - 376	319.839
			11	386 - 396	320.219
		l i	12	406 - 416	320.271
			13	426 - 436	320.26
			14	446 - 456	320.813
			15	466 - 476	320.631
			8	326 - 336	315.383
<u> </u>	04/02	16:00			
F	04/02	16:00		346 - 356	315.362
	04/02	16:00	9	346 - 356 366 - 376	315.362 315.307
	04/02	16:00	9 10	366 - 376	315.307
	04/02	16:00	9 10 11	366 - 376 386 - 396	315.307 315.765
	04/02	16:00	9 10 11 12	366 - 376 386 - 396 406 - 416	315.307 315.765 315.703
	04/02	16:00	9 10 11	366 - 376 386 - 396	315.307 315.765

Weli	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
RD-45A	08/02	FLUTe rem	oval in progr	ess during 3rd quarter	2002
RD-53	02/02	12:27	2	84 - 89	Dry
		ļ	3	94 - 99	Dry
			4	104 - 109	Dry
			5	114 - 119	111.096
1			6	124 - 129	124.285
			7	134 - 139	130.06
			8	144 - 149	129.158
			9	154 - 159	130.186
			2	84 - 89	Dry -
1 1			3	94 - 99	Dry
1			4	104 - 109	Dry
			5	114 - 119	112.634
			6	124 - 129	126.129
			7	134 - 139	131.272
1 [04/02	12:27	8	144 - 149	130.37
			9	154 - 159	131.403
	08/02	Data could	not be retriev	red from datalogger 3r	d quarter 2002
1	10/02	13:22	2	84 - 89	
	•		3	94 - 99	
			4	104 - 109	Dry
1			5	114 - 119	116.175
1 1			6	124 - 129	Dry
]			7	134 - 139	135.167
			8	144 - 149	135.233
			9	154 - 159	135.286
RD-64	05/02	No datalogo	er installed 2	2nd quarter 2002	
	08/02	No datalogo	er installed	3rd quarter 2002	
	11/02	No datalogo	er installed 4	Ith quarter 2002	
RD-66	02/02	14:46	6	176 - 186	170.617
		1	7	196 - 206	173.499
L			8	216 - 226	173.852
	04/02	14:46	5	156 - 166	Dry
			6	176 - 186	171.628
			7	196 - 206	173.944
			8	216 - 226	174.297
RD-71	02/02	8:46	8	192-202	181.215
		1	9	212 - 222	181.233
			10	232 - 242	181.315
			11	252 - 262	181.402
			12	272 - 282	181.566

Well	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
RD-71	04/02	8:46	8	192 - 202	181.42
			9	212 - 222	181.393
			10	232 - 242	181.401
		1	11	252 - 262	181.503
			12	272 - 282	181.682
RD-72	02/02	12:10	2	65 - 75	. Dry
			3	85 - 95	88.45
			4	105 - 115	87.601
			5	125 - 135	87.325
			6	145 - 155	84.715
			7	165 - 175	NM
			8	185-195	83.45
	04/02	8:49	2	65 - 75	Dry
			3	85 - 95	89.828
			4	105 - 115	89.101
			5	125 - 135	88.858
			6	145 - 155	86.056
			7	165 - 175	NM
		1	8	185 - 195	84.792
	08/02	Data could	not be retriev	ed from datalogger 3r	
	10/02	11:42	2	65 - 75	
			3	85 - 95	91.939
			4	105 - 115	92.059
			5	125 - 135	91.794
		· ·	6	145 - 155	90.402
			7	165 - 175	NM
			8	185 - 195	88.529
RD-73	02/02	14:21	5	67 - 72	Dry
	02.02	1	6	77 - 82	72.374
		1	7	87 - 92	72.31
			8	97 - 102	72.398
			9	107 - 112	72.27
	02/02	14:21	10	117 - 122	NM
	OLIOL		11	127 - 132	72.423
			12	137 - 140	72.454
	04/02	12:34	5	67 - 72	Dry
	0-7/02	12.07	6	77 - 82	72.721
			7	87 - 92	72.615
			8	97 - 102	72.715
			9	107 - 112	72.759
			10	117 - 122	12.555 NM
	,		11	127 - 132	72.726
			12	137 - 140	72.757

Weil	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
RD-73	08/02	9:24	5	67 - 72	Dry
			6	77 - 82	76.856
			7	87 - 92	76.729
			8	97 - 102	76.81
			9	107 - 112	76.667
			10	117 - 122	NM
			11	127 - 132	76.867
			12	137 - 140	76.874
	10/02	12:17	5	67 - 72	Dry
			6	77 - 82	Dry
			7	87 - 92	78.241
			8	97 - 102	78.296
			9	107 - 112	78.166
			10	117 - 122	NM
			11	127 - 132	78.368
]	12	137 - 140	78.401
HAR-01	02/02	12:40	4	43 - 48	Dry
12.00	02.02	12.10	5	53 - 58	50.099
			6	63 - 68	50.033
			7	73 - 78	50.077
			8	83 - 88	49.981
			9	93 - 98	50.1
			10	103 - 108	50.006
	04/02	10:42	4	43 - 48	Dry
	04702	,0.42	5	53 - 58	51.525
			6	63 - 68	51.456
			7	73 - 78	51.426
			8	83 - 88	51.411
			9	93 - 98	51.556
			10	103 - 108	51.449
	08/02	10:42			
	00/02	10.42	<u>4</u> 5	43 - 48	Dry 53.353
			6	53 - 58 63 - 68	
					53.268
			7	73 - 78 83 - 88	53.393
	,		8		53.246
			9	93 - 98	53.402
	10/02	11:50	10	103 - 108	53.266
	10/02	11:58	4	43 - 48	Dry
			5	53 - 58	54.547
			6	63 - 68	54.72
			7	73 - 78	54.826
			8	83 - 88	54.676
			9	93 - 98	54.858
		l	10	103 - 108	54.708

Well	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
HAR-16	02/02	13:07	3	19 - 24	Dry
			4	29 - 34	Dry
	:		5	39 - 44	40.789
			6	49 - 54	46.004
}			7	59 - 64	46.159
			8	69 - 74	46.536
			9	79 - 84	
			10	89 - 94	46.706
		13:26	11	99-104	46.633
			12	109-114	49.329
	05/02	13:07	3	19 - 24	Dry
			4	29 - 34	Dry
1		1	5	39 - 44	40.817
			6	49 - 54	47.874
			7	59 - 64	47.969
			8	69 - 74	48.364
			9	79 - 84	103.895
			10	89 - 94	48.509
		13:26	11	99 - 104	48.422
			12	109 - 114	51.07
l l	08/02		3	19 - 24	NM
			4	29 - 34	NM
			5	39 - 44	NM
			6	49 - 54	NM
			7	59 - 64	NM
[[8	69 - 74	NM
İ			9	79 - 84	NM
			10	89 - 94	NM
		13:26	11	99 - 104	50.542
			12	109 - 114	53.104
	10/02	13:49	3	19 - 24	Dry
			4	29 - 34	Dry
			5	39 - 44	40.849
	!		6	49 - 54	53.953
			7	59 - 64	52.009
			8	69 - 74	52.311
			9	79 - 84	
			10	89 - 94	52.492
		14:02	11	99 - 104	52.276
			12	109 - 114	54.73
HAR-24	02/02	7:54	1	37 - 42	Dry
			2	47 - 52	Dry
	•		3	57 - 62	Dry
	!		4	67 - 72	Dry
			5	77 - 82	75.064
			6	87 - 92	76.049

Well	Date	Time	Port	Spacer Interval (ft btc)	Depth to Water (ft btc)
HAR-24	02/02	7:54	7	97 - 102	76.087
		1	8	107 - 112	76.162
	04/02	13:39	1	37 - 42	Dry
			2	47 - 52	Dry
			3	57 - 62	Dry
			4	67 - 72	Dry
			5	77 - 82	Dry
			6	87 - 92	82.168
			7	97 - 102	82.255
			8	107 - 112	82.181
	08/02	13:39	1	37 - 42	Dry
			2	47 - 52	Dry
			3	57 - 62	Dry
		1	4	67 - 72	Dry
			5	77 - 82	Dry
		1	6	87 - 92	84.112
			7	97 - 102	84.215
			8	107 - 112	84.041
	10/02	13:32	1	37 - 42	Dry
			2	47 - 52	Dry
			3	57 - 62	Dry
			4	67 - 72	Dry
			5	77 - 82	Dry
		1	6	87 - 92	Dry
			7	97 - 102	101.321
			8	107 - 112	101.02
OS-24	02/02	13:38	1	223 - 233	Dry
			2	243 - 253	Dry
			3	263 - 273	253.1
•		ĺ	4	283 - 293	253.234
			5	303 - 313	280.446
			6	323 - 333	281.051
			7	343 - 353	281.488
		13:36	8	363 - 373	275.624
		}	10	403 - 413	281.562
			12	443 - 453	281.463
			13	463 - 473	281.391
			14	483 - 493	281.632
		<u> </u>	15	503 - 513	281.771
	05/02	Datalogger	was stolen d	uring 2nd quarter 200	2
	08/02	No datalogo	ger installed 3	3rd quarter 2002	
	11/02	No datalogo	ger installed 4	Ith quarter 2002	

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	SH-11	RS-07	RS-07	RS-07	RS-08	RS-10
FLUTe Port No.						
Sample Type	Primary	Primary	Dup	Split	Primary	Primary
Sample Date	02/15/02	02/19/02	02/19/02	02/19/02	05/07/02	02/14/02
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	0.13 U	0.13 U	0.3 U	0.25 U	0.13 U
1,1,2,2-Tetrachloroethane	0.33 U	0.33 U	0.33 U	0.3 U	0.85 U	0.33 U
1,1,2-trichloro-1,2,2-trifluoroethane	0.32 U	0.32 U	0.32 U	0.2 U		0.32 U
1,1,2-Trichloroethane	0.31 U	0.31 U	0.31 U	0.2 U	0.4 U	0.31 U
1,1-Dichloroethane	0.13 U	0.13 U	0.13 U	0.2 U	0.2 U	0.13 U
1,1-Dichloroethene	0.14 U	0.14 U	0.14 U	0.2 U	Ō.3 U	0.14 U
1,2-Dichlorobenzene	0.11 U	0.11 U	0.11 U	0.2 U	0.55 U	0.11 U
1,2-Dichloroethane	0.25 J	0.22 U	0.22 U	0.3 U	0.4 U	0.22 U
1,2-Dichloropropane	0.14 U	0.14 U	0.14 U	0.2 U	0.35 U	0.14 U
1,3-Dichlorobenzene	0.1 U	0.1 U	0.1 U	0.1 U	0.65 U	0.1 U
1,4-Dichlorobenzene	0.11 U	0.11 U	0.11 U	0.2 U	0.55 U	0.11 U
1,4-Dioxane				***	0.32 U	
2-Butanone	3.2 U	3.2 U	3.2 U	2.0 U	3.5 U	3.2 U
2-Chloroethyl Vinyl Ether				0.3 U	4.8 U	
2-Hexanone	3.5 U	3.5 U	3.5 U	0.5 U		3.5 U
4-Methyl-2-pentanone	3.4 U	3.4 U	3.4 U	0.3 U	5.4 U	3.4 U
Acetone	5 U	5 U	5 U	0.9 U	9 U	5 U
Benzene	0.11 U	0.11 U	0.11 U	0.2 U	0.25 U	0.11 U
Bromodichloromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.25 U	0.2 U
Bromoform	0.34 U	0.34 U	0.34 U	0.3 U	0.55 U	0.34 U
Bromomethane	0.3 U	0.3 U	0.3 Ų	0.4 U	0.95 U	0.3 U
Carbon disulfide	0.38 U	0.38 U	0.38 U	0.2 U	6.8 U	0.38 U
Carbon tetrachloride	0.15 U	0.15 U	0.15 U	0.5 U	0.3 U	0.15 U
Chlorobenzene	0.085 U	0.085 U	0.085 U	0.2 U	0.35 U	0.085 U
Chloroethane	0.33 U	0.33 U	0.33 U	0.3 U	0.55 U	0.33 U
Chloroform	0.19 U	0.19 U	0.19 U	0.2 U	0.35 U	0.19 U
Chloromethane	0.27 U	0.27 ป	0.27 U	0.4 U	0.7 U	0.27 U
cis-1,2-Dichloroethene	1	0.66 J	0.54 J	0.3 U	83	0.14 U
cis-1,3-Dichloropropene	0.11 U	0.11 U	0.11 U	0.2 U	0.4 U	0.11 U
Dibromochloromethane	0.18 U	0.18 U	0.18 U	0.3 U	0.3 U	0.18 U
Ethylbenzene	0.18 U	0.18 U	0.18 U	0.2 U	0.5 U	0.18 U
m,p-Xylenes	0.69 U	0.69 U	0.69 U	0.3 U	1 U	0.69 U
Methylene chloride	0.22 U	0.22 U	0.22 U	2.0 U	2.1 J	0.22 U
o-Xylene	0.14 U	0.14 U	0.14 U	0.1 U	0.35 U	0.14 U
Tetrachloroethene	0.16 U	0.16 U	0.16 U	0.2 U	0.4 U	0.16 U
Toluene	0.093 U	0.093 U	0.093 U	0.3 U	0.35 U	0.093 U
trans-1,2-Dichloroethene	0.23 J	0.15 J	0.2 J	0.3 U	9.6	0.11 U
trans-1,3-Dichloropropene	0.19 U	0.19 U	0.19 U	0.3 U	0.35 U	0.19 U
Trichloroethene	0.14 U	0.14 U	0.14 U	0.3 U	0.33 J	0.14 U
Trichlorofluoromethane	0.17 U	0.17 U	0.17 U	0.2 U	0.35 U	0.17 U
Vinyl chloride	0.21 U	0.21 U	0.21 U	0.3 U	4.2 J	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	AmA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	RS-10	RS-54	RS-54 ·	RS-54	ES-17	ES-21
FLUTe Port No.				110-04	LO-17	E3-21
Sample Type	Primary	Primary	Primary	Dup	Primary	Primary .
Sample Date	08/30/02	03/01/02	11/07/02	11/07/02	03/01/02	05/02/02
Compound (ug/l)	00/00/02	00/01/02	11707702	11/01/02	00/01/02	03/02/02
1,1,1-Trichloroethane	0.088 U	4300	4100	4100	5.2 U	0.44 U
1,1,2,2-Tetrachloroethane	0.000 U	33 U	5.8 U	5.8 U	13 U	1.4 U
1,1,2-trichloro-1,2,2-trifluoroethane	1.2 U	540	300	300	3200	6 U
1,1,2-Trichloroethane	0.21 U	31 U	4.2 U	4.2 U	12 U	1 U
1,1-Dichloroethane	0.21 U	980	1100	1100	5.2 U	0.6 U
1,1-Dichloroethene	0.12 U	1500	1400	1400	5.6 U	0.55 U
1,2-Dichlorobenzene	0.11 U 0.12 U	1300 11 U	2.4 U	2.4 U	4.4 U	0.55 U
1,2-Dichloroethane	0.12 U	22 U	12	11	8.8 U	0.0 U
1,2-Dichloropropane	0.13 U	14 U	2.6 U	2.6 U	5.6 U	0.9 U 0.65 U
1,3-Dichlorobenzene	0.13 U 0.12 U	14 U	2.4 U	2.0 U	. 4 U	0.65 U
1,4-Dichlorobenzene	0.12 U 0.12 U	10 U	2.4 U	2.4 U	. 4 U	0.6 U
1,4-Dioxane	0.12 0		2.4 0			
2-Butanone	3.8 U	320 U	76 U	76 U	130 U	19 U
2-Chloroethyl Vinyl Ether	3.0 0	320 0		100		18 U
2-Hexanone	3.6 U	350 U	72 U	72 U	 140 U	10 U
4-Methyl-2-pentanone	1.7 U	340 U	34 U	34 U	140 U	8.5 U
Acetone	3.7 U	500 U	120 J	77 J.L	200 U	18 U
Benzene	0.1 U	11 U	8 J	8.4 J	4.4 U	0.5 U
Bromodichloromethane	0.12 U	20 U	2.4 U	2.4 U	8 U	0.5 U
Bromoform	0.12 U	34 U	5 U	5.4 O	14 U	1.2 U
Bromomethane	0.16 U	30 U	3.2 U	3.2 U	12 U	0.8 U
Carbon disulfide	0.10 U	38 U	10 U	10 U	15 U	2.6 U
Carbon tetrachloride	0.12 U	15 U	2.4 U	2.4 U	6 U	0.6 U
Chlorobenzene	0.11 U	8.5 U	2.2 U	2.2 U	3.4 U	0.55 U
Chloroethane	0.13 U	33 U	2.6 U	2.6 U	13 U	0.65 U
Chloroform	0.095 U	19 U	9.6 J	8.6 J	7.6 U	0.48 U
Chloromethane	0.14 U	27 U	2.8 U	2.8 U	11 U	0.7 U
cis-1,2-Dichloroethene	0.13 U	23 J	23	23	70	95
cis-1,3-Dichloropropene	0.12 U	11 U	2.4 U	2.4 U	4.4 U	0.6 U
Dibromochloromethane	0.13 U	18 U	2.6 U	2.6 U	7.2 U	0.65 U
Ethylbenzene	0.099 U	18 U	2 U	2 U	7.2 U	0.5 U
m,p-Xylenes	0.19 U	69 U	3.8 U	3.8 U	28 U	0.95 U
Methylene chloride	0.24 U	74 J	14 J	14 J	20 J,L	4.7 J,L
o-Xylene	0.1 U	14 U	2 U	2 U	5.6 U	0.5 U
Tetrachloroethene	0.13 U	16 U	2.6 U	2.6 U	6.4 U	0.65 U
Toluene	0.13 U	9.3 U	4 J,L	4.2 J,L	3.7 U	0.65 U
trans-1,2-Dichloroethene	0.13 U	11 U	2.6 U	2.6 U	4.4 U	2 J
trans-1,3-Dichloropropene	0.17 U	19 U	3.4 U	3.4 U	7.6 U	0.85 U
Trichloroethene	0.13 U	1700	1400	1400	770	620
Trichlorofluoromethane	0.21 U	17 U	4.2 U	4.2 U	6.8 U	1 U
Vinyl chloride	0.13 U	21 U	2.6 U	2.6 U	8.4 U	0.65 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	ES-21	ES-22	ES-23	ES-23	ES-26	ES-26
FLUTe Port No.						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	08/19/02	05/02/02	03/01/02	08/21/02	03/11/02	08/13/02
Compound (ug/l)	00/10/02	00/02/02	00/01/02	00121102	00/11/02	00/10/02
1,1,1-Trichloroethane	0.44 U	0.19 J	0.13 U	0.088 U	0.13 U	0.088 U
1,1,2,2-Tetrachloroethane	1.4 U	0.29 U	0.33 U	0.29 U	0.33 U	0.29 U
1,1,2-trichloro-1,2,2-trifluoroethane	6 U	1.2 U	0.88 J	1.2 U	0.32 U	180
1,1,2-Trichloroethane	1 U	0.21 U	0.31 U	0.21 U	0.31 U	0.21 U
1,1-Dichloroethane	0.6 U	0.16 J	0.13 U	0.12 U	0.13 U	0.12 U
1,1-Dichloroethene	0.55 U	0.39 J	0.14 U	0.3 J	Ō:14 U	0.11 U
1,2-Dichlorobenzene	0.6 U	0.12 U	0.14 U	0.12 U	0.11 U	0.11 U
1,2-Dichloroethane	0.9 U	0.12 U	0.22 U	0.12 U	0.22 U	0.12 U
1,2-Dichloropropane	0.65 U	0.13 U	0.14 U	0.13 U	0.14 U	0.13 U
1,3-Dichlorobenzene	0.60 U	0.12 U	0.14 U	0.13 U	0.14 U	0.13 U
1,4-Dichlorobenzene	0.6 U	0.12 U	0.11 U	0.12 U	0.1 U	0.12 U
1,4-Dioxane						
2-Butanone	19 U	3.8 U	3.2 U	3.8 U	3.2 U	3.8 U
2-Chloroethyl Vinyl Ether		3.6 U				
2-Hexanone	18 U		3.5 U	3.6 U	3.5 U	3.6 U
4-Methyl-2-pentanone	8.5 U	1.7 U	3.4 U	1.7 U	3.4 U	1.7 U
Acetone	18 U	3.7 U	5.1 G	3.7 U	5 U	3.7 U
Benzene	0.5 U	0.1 U	0.11 U	0.1 U	0.11 U	0.1 U
Bromodichloromethane	0.6 U	0.12 U	0.2 U	0.12 U	0.2 U	0.12 U
Bromoform	1.2 U	0.25 U	0.34 U	0.25 U	0.34 U	0.25 U
Bromomethane	0.8 U	0.16 U	0.3 U	0.16 U	0.3 U	0.16 U
Carbon disulfide	2.6 U	0.52 U	0.38 U	0.52 U	0.38 U	0.52 U
Carbon tetrachloride	0.6 U	0.12 U	0.15 U	0.12 U	0.15 U	0.12 U
Chlorobenzene	0.55 U	0.11 U	0.085 U	0.11 U	0.085 U	0.11 U
Chloroethane	0.65 U	0.13 U	0.33 U	0.13 U	0.33 U	0.13 U
Chloroform	0.48 U	0.095 U	0.19 U	0.095 U	0.19 U	0.27 J
Chloromethane	0.7 U	0.14 U	0.27 U	0.14 U	0.27 U	0.14 U
cis-1,2-Dichloroethene	110	20	0.46 J	0.37 J	0.36 J	0.41 J
cis-1,3-Dichloropropene	0.6 U	0.12 U	0.11 U	0.12 U	. 0.11 U	0.12 U
Dibromochloromethane	0.65 U	0.13 U	0.18 U	0.13 U	0.18 U	0.13 U
Ethylbenzene	0.5 U	0.099 U	0.18 U	0.099 U	0.18 U	0.099 U
m,p-Xylenes	0.95 U	0.19 U	0.69 U	0.19 U	0.69 U	0.19 U
Methylene chloride	1.2 U	0.24 U	0.22 U	0.24 U	0.22 U	0.24 U
o-Xylene	0.5 U	0.1 U	0.14 U	0.1 U	0.14.U	0.1 U
Tetrachloroethene	0.65 U	0.13 U	0.16 U	0.13 U	0.16 U	0.14 J
Toluene	0.65 U	0.13 U	0.093 U	0.13 U	0.093 U	0.13 U
trans-1,2-Dichloroethene	9.6	1.6	0.11 U	0.13 U	0.11 U	0.13 U
trans-1,3-Dichloropropene	0.85 U	0.17 U	0.19 U	0.17 U	0.19 U	0.17 U
Trichloroethene	650	170	44	53	40	50
Trichlorofluoromethane	1 U	0.21 U	0.17 U	0.21 U	0.17 U	0.21 U
Vinyl chloride	0.65 U	0.13 U	0.21 U	0.13 U	0.21 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	ES-27	ES-27	ES-27	ES-30	ES-30	ES-31
FLUTe Port No.						
Sample Type	Primary	Primary	Dup	Primary	Primary	Primary
Sample Date	03/01/02	08/13/02	08/13/02	03/01/02	08/14/02	02/18/02
Compound (ug/l)						
1,1,1-Trichloroethane	2.7 J	1.2 J	4.8 J	0.13 U	0.088 U	0.13 U
1,1,2,2-Tetrachloroethane	3.3 U	1.2 U	2.9 U	0.33 U	0.29 U	0.33 U
1,1,2-trichloro-1,2,2-trifluoroethane	3.2 U	540	1800	1.2 J	1.2 J	0.32 U
1,1,2-Trichloroethane	3.1 U	0.84 U	2.1 U	0.31 U	0.21 U	0.31 U
1,1-Dichloroethane	1.3 U	0.48 U	1.4 J	0.13 U	0.12 U	0.13 U
1,1-Dichloroethene	1.4 U	0.44 U	1.1 U	0.42 J	0.48 J	0.72 J
1,2-Dichlorobenzene	1.1 U	0.48 U	1.2 U	0.11 U	0.12 U	0.11 U
1,2-Dichloroethane	2.2 U	0.72 U	1.8 U	0.22 U	0.18 U	0.22 U
1,2-Dichloropropane	1.4 U	0.52 U	1.3 U	0.14 U	0.13 U	0.14 U
1,3-Dichlorobenzene	1 U	0.48 U	1.2 U	0.1 U	0.12 U	0.1 U
1,4-Dichlorobenzene	1.1 U	0.48 U	1.2 U	0.11 U	0.12 U	0.11 U
1,4-Dioxane						
2-Butanone	32 U	15 U	38 U	3.2 U	3.8 U	3.2 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	35 U	14 U	36 U	3.5 U	3.6 U	3.5 U
4-Methyl-2-pentanone	34 U	6.8 U	17 U	3.4 U	1.7 U	3.4 U
Acetone	50 U	45	37 U	5 U	3.7 U	5 U
Benzene	1.1 U	0.44 J,L	1 U	0.11 U	0.1 U	0.11 U
Bromodichloromethane	2 U	0.48 U	1.2 U	0.2 U	0.12 U	0.2 U
Bromoform	3.4 U	1 U	2.5 U	0.34 U	0.25 U	0.34 U
Bromomethane	3 U	0.64 U	1.6 U	0.3 U	0.16 U	0.3 U
Carbon disulfide	3.8 U	2.1 U	5.2 U	0.38 U	0.52 U	1.6 J
Carbon tetrachloride	1.5 U	0.48 U	1.2 U	0.15 U	0.12 U	0.15 U
Chlorobenzene	0.85 U	0.44 U	1.1 U	0.085 U	0.11 U	0.085 U
Chloroethane	3.3 U	0.52 U	1.3 U	0.33 U	0.13 U	0.33 U
Chloroform	1.9 U	0.38 U	0.95 U	0.19 U	0.095 U	0.19 U
Chloromethane	2.7 U	0.56 U	1.4 U	0.27 U	0.14 U	0.27 U
cis-1,2-Dichloroethene	13	9.7	25	0.68 J	1.2	0.14 ป
cis-1,3-Dichloropropene	1.1 U	0.48 U	1.2 U	0.11 U	0.12 U	0.11 U
Dibromochloromethane	1.8 U	0.52 U	1.3 U	0.18 U	0.13 U	0.18 U
Ethylbenzene	1.8 U	0.48 J,L	1.3 J,L	0.18 U	0.099 U	0.18 U
m,p-Xylenes	6.9 U	0.76 U	4.8 J,L	0.69 U	0.19 U	0.69 U
Methylene chloride	2.2 U	0.96 U	2.4 U	0.22 U	0.24 U	0.22 J,B,L
o-Xylene	1.4 U	0.4 U	1.5 J,L	0.14 U	0.1 U	0.14 U
Tetrachloroethene	1.6 U	0.52 U	1.3 U	0.16 U	0.13 U	0.16 U
Toluene	0.93 U	0.52 U	1.3 U	0.093 U	0.16 J,B	0.093 U
trans-1,2-Dichloroethene	1.1 U	0.52 U	1.3 U	0.11 U	0.13 U	0.11 U
trans-1,3-Dichloropropene	1.9 U	0.68 U	1.7 U	0.19 U	0.17 U	0.19 U
Trichloroethene	170	160	540	72	68	0.47 J
Trichlorofluoromethane	1.7 U	0.84 U	2.1 U	0.17 U	0.21 U	0.17 U
Vinyl chloride	2.1 U	0.52 U	1.3 U	0.21 U	0.13 U	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	ES-31	ES-31	HAR-03	HAR-04	HAR-04	HAR-09
FLUTe Port No.						
Sample Type	Dup	Split	Primary	Primary	Split	Primary
Sample Type Sample Date	02/18/02	02/18/02	05/13/02	03/12/02	03/12/02	11/14/02
Compound (ug/l)	02/10/02	02/10/02	00/10/02	00/12/02	00/12/02	11/14/02
1,1,1-Trichloroethane	0.13 U	0.3 U	1.2	11 J	11	0.05 U
1,1,2,2-Tetrachloroethane	0.33 U	0.3 U	0.29 U	6.6 U	0.3 U	0.00 U
1,1,2-trichloro-1,2,2-trifluoroethane	0.32 U	0.2 U	1.2 U	6.4 U	0.2 U	
1,1,2-Trichloroethane	0.31 U	0.2 U	0.21 U	6.2 U	0.2 U	0.08 U
1,1-Dichloroethane	0.13 U	0.2 U	0.12 U	2.6 U	0.2 U	0.04 U
1,1-Dichloroethene	0.64 J	0.2 U	0.12 U	2.8 U	0.2 U	0.13 J
1,2-Dichlorobenzene	0.11 U	0.2 U	0.11 U	2.2 U	0.2 U	0.11 U
1,2-Dichloroethane	0.22 U	0.2 U	0.18 U	4.4 U	0.3 U	0.08 U
1,2-Dichloropropane	0.14 U	0.2 U	0.13 U	2.8 U	0.2 U	0.07 U
1,3-Dichlorobenzene	0.1 U	0.1 U	0.12 U	2.0 0 2 U	0.1 U	0.13 U
1,4-Dichlorobenzene	0.11 U	0.2 U	0.12 U	2.2 U	0.2 U	0.11 U
1,4-Dioxane		0.2 0				3.71 U
2-Butanone	3.2 U	2.0 U	3.8 U	64 U	2.0 U	0.7 U
2-Chloroethyl Vinyl Ether		0.3 U	3.6 U		0.3 U	
2-Hexanone	3.5 U	0.5 U	3.8 U	70 U	0.5 U	0.96 U
4-Methyl-2-pentanone	3.4 U	0.3 U	1.7 U	68 U	0.3 U	1.1 U
Acetone	5.4 C	0.9 U	3.7 U	100 U	0.9 U	1.8 U
Benzene	0.11 U	0.2 U	0.1 U	2.2 U	0.2 U	0.05 U
Bromodichloromethane	0.2 U	0.2 U	0.12 U	4 U	0.2 U	0.05 U
Bromoform	0.34 U	0.3 U	0.25 U	6.8 U	0.3 U	0.11 U
Bromomethane	0.3 U	0.4 U	0.16 U	6 U	0.4 U	0.19 U
Carbon disulfide	0.67 J	0.2 U	0.52 U	7.6 U	0.2 U	1.4 U,J
Carbon tetrachloride	0.15 U	0.5 U	0.12 U	3 U	0.5 U	0.06 U
Chlorobenzene	0.085 U	0.2 U	0.11 U	1.7 U	0.2 U	0.07 U
Chloroethane	0.33 U	0.2 U	0.13 U	6.6 U	0.3 U	0.11 U
Chloroform	0.19 U	0.2 U	0.18 J	3.8 U	0.2 U	0.07 U
Chloromethane	0.27 U	0.4 U	0.14 U	5.4 U	0.4 U	0.14 U
cis-1,2-Dichloroethene	0.14 U	0.3 U	2.4	13 J	10	110
cis-1,3-Dichloropropene	0.11 U	0.2 U	0.12 U	2.2 U	0.2 U	0.08 U
Dibromochloromethane	0.18 U	0.3 U	0.13 U	3.6 U	0.3 U	0.06 U
Ethylbenzene	0.18 U	0.2 U	0.099 U	3.6 U	0.2 U	0.1 U
m,p-Xylenes	0.69 U	0.3 U	0.19 U	14 U	0.3 U	0.21 U
Methylene chloride	0.23 J,B,L	2.0 U	0.24 U	4.4 U	2.0 U	0.06 U
o-Xylene	0.14 U	0.1 U	0.1 U	2.8 U	0.1 U	0.07 U
Tetrachloroethene	0.16 U	0.2 U	0.13 U	3.2 U	0.2 U	0.08 U
Toluene	0.093 U	0.3 U	0.15 J	1.9 U	0.3 U	0.07 U
trans-1,2-Dichloroethene	0.11 U	0.3 U	0.13 U	2.2 U	0.3 U	9.6
trans-1,3-Dichloropropene	0.19 U	0.3 U	0.17 U	3.8 U	0.3 U	0.07 U
Trichloroethene	0.46 J	0.49 J	160	1200	970	2.1
Trichlorofluoromethane	0.17 U	0.2 U	0.21 U	3.4 U	0.2 U	0.07 U
Vinyl chloride	0.21 U	0.3 U	0.13 U	4.2 U	0.3 U	2.1
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	AmA	DMA	DMA	AmA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	HAR-11	HAR-11	HAR-12	HAR-14	HAR-14	HAR-15
FLUTe Port No.			****			
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	02/15/02	08/30/02	11/20/02	05/07/02	11/08/02	05/07/02
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	0.088 U	0.05 U	1.5	1.2	0.05 U
1,1,2,2-Tetrachloroethane	0.33 U	0.29 U	0.17 U	0.17 U	0.29 U	0.17 U
1,1,2-trichloro-1,2,2-trifluoroethane	0.32 U	1.2 U			8	
1,1,2-Trichloroethane	0.31 U	0.21 U	0.08 U	0.08 U	0.21 U	U 80.0
1,1-Dichloroethane	0.13 U	0.12 U	0.04 U	0.04 U	0.26 J	0.04 U
1,1-Dichloroethene	0.14 U	0.11 U	0.06 U	12	9.4	0.06 U
1,2-Dichlorobenzene	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U	0.11 U
1,2-Dichloroethane	0.22 U	0.18 U	U 80.0	0.08 U	0.18 U	0.08 U
1,2-Dichloropropane	0.14 U	0.13 U	0.07 U	0.07 U	0.13 U	0.07 U
1,3-Dichlorobenzene	0.1 U	0.12 U	0.13 U	0.13 U	0.12 U	0.13 U
1,4-Dichlorobenzene	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U	0.11 U
1,4-Dioxane			0.32 U	115		0.32 U
2-Butanone	3.2 U	3.8 U	0.7 U	0.7 U	3.8 U	0.7 U
2-Chloroethyl Vinyl Ether				0.96 U		0.96 U
2-Hexanone	3.5 U	3.6 U	0.96 U		3.6 U	
4-Methyl-2-pentanone	3.4 U	1.7 U	1.1 U	1.1 U	1.7 U	1.1 U
Acetone	5 U	3.7 U	2.1 J	1.8 U	3.7 U	3.1 J
Benzene	0.11 U	0.1 U	0.05 U	0.05 U	0.1 U	0.05 U
Bromodichloromethane	0.2 U	0.12 U	0.05 U	0.05 U	0.12 U	0.05 U
Bromoform	0.34 U	0.25 U	0.11 U	0.11 U	0.25 U	0.11 U
Bromomethane	0.3 U	0.16 U	0.19 U	0.19 U	0.16 U	0.19 U
Carbon disulfide	0.38 U	0.52 U	1.4 U	1.4 U	0.52 U	1.4 U
Carbon tetrachloride	0.15 U	0.12 U	0.06 U	2.3	1.6	0.06 U
Chlorobenzene	0.085 U	0.11 U	0.07 U	0.07 U	0.11 U	0.07 U
Chloroethane	0.33 U	0.13 U	0.11 U	0.11 U	0.13 U	0.11 U
Chloroform	0.19 U	0.095 U	0.07 U	3.2	2.9	0.07 U
Chloromethane	0.27 U	0.14 U	0.15 J	0.14 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	8.5	10	0.24 J	0.18 J	0.23 J	0.09 U
cis-1,3-Dichloropropene	0.11 U	0.12 U	0.08 U	0.08 U	0.12 U	U 80.0
Dibromochloromethane	0.18 U	0.13 U	0.06 U	0.06 U	0.13 U	0.06 U
Ethylbenzene	0.18 U	0.099 U	0.1 U	0.1 U	0.099 U	0.1 U
m,p-Xylenes	0.69 U	0.19 U	0.21 U	0.21 U	0.19 U	0.21 U
Methylene chloride	0.22 ป	0.24 U	0.06 U	0.086 J	0.24 U	0.083 J
o-Xylene	0.14 U	0.1 U	0.07 U	0.07 U	0.1 U	0.07 U
Tetrachloroethene	0.16 U	0.13 U	0.08 U	U 80.0	0.13 U	0.08 U
Toluene	0.093 U	0.13 U	0.07 U	0.07 U	0.13 U	0.07 U
trans-1,2-Dichloroethene	0.71 J	0.69 J	0.09 U	0.09 U	0.13 U	0.09 U
trans-1,3-Dichloropropene	0.19 U	0.17 U	0.07 U	0.07 U	0.17 U	0.07 U
Trichloroethene	0.14 U	0.13 U	0.22 J	5.3	4.4	0.06 U
Trichlorofluoromethane	0.17 U	0.21 U	0.07 U	0.07 U	0.21 U	0.07 U
Vinyl chloride	1.9	2.3	0.06 U	0.06 U	0.13 U	0.06 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	HAR-15	HAR-27	HAR-27	HAR-27	HAR-27	HAR-27
FLUTe Port No.						
Sample Type	Primary	Primary	Dup	Split	Primary	Dup
Sample Date	11/08/02	05/14/02	05/14/02	05/14/02	08/30/02	08/30/02
Compound (ug/l)						30.00,02
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.3 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	0.3 U	0.29 U	0.29 U
1,1,2-trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	0.2 U	1.2 U	1.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.2 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	0.3 U	0.18 U	0.18 U
1,2-Dichloropropane	0.13 U	0.13 U	0.13 U	0.5 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U
1,4-Dioxane		0.32 U				
2-Butanone	3.8 U	3.8 U	3.8 U	2 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether		3.6 U	3.6 U	0.5 U		
2-Hexanone	3.6 U				3.6 U	3.6 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	0.3 U	1.7 U	1.7 U
Acetone	3.7 U	3.8 J,L	4.5 J,L	0.9 U	3.7 U	3.7 U
Benzene	0.1 U	0.1 U	0.12 J	0.2 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
Bromoform	0.25 U	0.25 U	0.25 U	0.3 U	0.25 U	0.25 U
Bromomethane	0.16 U	0.16 U	0.16 U	0.4 U	0.16 U	0.16 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	0.2 U	0.52 U	0.52 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.5 U	0.12 U	0.12 U
Chlorobenzene	0.11 U	0.11 U	0.11 U	0.2 U	0.11 U	0.11 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U	0.13 U
Chloroform	0.095 U	0.095 U	0.095 U	0.2 U	0.095 U	0.095 U
Chloromethane	0.14 U	0.14 U	0.14 U	0.4 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	0.13 U	7.6	7.7	8.6	11	11
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U	0.13 U
Ethylbenzene	0.099 U	0.099 U	0.42 J	0.2 U	0.11 J	0.099 U
m,p-Xylenes	0.19 U	0.19 U	1.7	0.3 U	0.34 J	0.19 U
Methylene chloride	0.24 U	0.24 U	0.24 U	2 U	0.24 U	0.24 U
o-Xylene	0.1 U	0.1 U	0.55 J	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.2 U	0.13 U	0.13 U
Toluene	0.13 U	0.13 U	1.2	0.3 U	0.13 U	0.13 U
trans-1,2-Dichloroethene	0.13 U	4.9	4.9	4.9	6.3	6.2
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.3 U	0.17 U	0.17 U
Trichloroethene	0.13 U	0.26 J	0.23 J	0.3 U	0.26 J	0.29 J
Trichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U	0.21 U
Vinyl chloride	0.13 U	1.6	1.6	1.2	2.1	2.1
Method	8260B	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	AmA	DMA	DMA

TABLE 3
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN SHALLOW WELLS AND THE ECL FRENCH-DRAIN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	HAR-27	HAR-27	HAR-28	HAR-32	HAR-33
FLUTe Port No.					
Sample Type	Primary	Dup	Primary	Primary	Primary
Sample Date	11/06/02	11/06/02	11/20/02	11/21/02	11/21/02
Compound (ug/l)					
1,1,1-Trichloroethane	0.25 U	0.25 U	0.05 U	1.2 U	0.05 U
1,1,2,2-Tetrachloroethane	0.85 U	0.85 U	0.17 U	4.2 U	0.17 U
1,1,2-trichloro-1,2,2-trifluoroethane					
1,1,2-Trichloroethane	0.4 U	0.4 U	0.08 U	2 U	0.08 U
1,1-Dichloroethane	0.2 U	0.2 U	0.04 U	4.1 J	0.04 U
1,1-Dichloroethene	0.3 U	0.3 U	0.06 U	2.7 J	0.06 U
1,2-Dichlorobenzene	0.55 U	0.55 U	0.11 U	2.8 U	0.11 U
1,2-Dichloroethane	0.4 U	0.4 U	0.08 U	2 U	0.08 U
1,2-Dichloropropane	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
1,3-Dichlorobenzene	0.65 U	0.65 U	0.13 U	3.2 U	0.13 U
1,4-Dichlorobenzene	0.55 U	0.55 U	0.11 U	2.8 U	0.11 U
1,4-Dioxane	2.99 U		0.32 U	0.32 U	0.32 U
2-Butanone	3.5 U	3.5 U	0.7 U	18 U	0.7 U
2-Chloroethyl Vinyl Ether					
2-Hexanone	4.8 U	4.8 U	0.96 U	24 U	0.96 U
4-Methyl-2-pentanone	5.4 U	5.4 U	1.1 U	27 U	1.1 U
Acetone	9 U	9 U	1.8 U	45 U	1.8 U
Benzene	0.25 U	0.25 U	0.05 U	1.2 U	0.05 U
Bromodichloromethane	0.25 U	0.25 U	0.05 U	1.2 U	0.05 U
Bromoform	0.55 U	0.55 U	0.11 U	2.8 U	0.11 U
Bromomethane	0.95 U	0.95 U	0.19 U	4.8 U	0.19 U
Carbon disulfide	6.8 U	6.8 U	1.4 U	34 U	1.4 U
Carbon tetrachloride	0.3 U	0.3 U	0.06 U	1.5 U	0.06 U
Chlorobenzene	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
Chloroethane	0.55 U	0.55 U	0.11 U	2.8 U	0.11 U
Chloroform	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
Chloromethane	0.7 U	0.7 U	0.14 U	3.5 U	0.14 U
cis-1,2-Dichloroethene	12	12	1.5	63	0.19 J
cis-1,3-Dichloropropene	0.4 U	0.4 U	0.08 U	2 U	0.08 U
Dibromochloromethane	0.3 U	0.3 U	0.06 U	1.5 U	0.06 U
Ethylbenzene	0.5 U	0.5 U	0.1 U	2.5 U	0.1 U
m,p-Xylenes	1 U	1 U	0.21 U	5.2 U	0.21 ป
Methylene chloride	0.3 U	0.3 U	0.06 U	4 U	0.06 U
o-Xylene	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
Tetrachloroethene	0.4 U	0.4 U	U 80.0	2 U	0.08 U
Toluene	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
trans-1,2-Dichloroethene	5.3	5.1	0.09 U	2.2 U	0.09 U
trans-1,3-Dichloropropene	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
Trichloroethene	0.37 J	0.46 J	0.75 J	940	0.98 J
Trichlorofluoromethane	0.35 U	0.35 U	0.07 U	1.8 U	0.07 U
Vinyl chloride	1.7 J	1.5 J	0.06 U	1.5 U	0.06 U
Method	8260B	8260B	8260B	8260B	8260B
Laboratory	DMA	DMA	DMA	DMA	DMA

TABLE 3 FOOTNOTES AND EXPLANATIONS

DMA = Del Mar Analytical of Irvine, California.

(---) = Analysis not performed.

Primary = Primary sample.

Dup = Sample duplicate.

Split = Sample split.

ug/l = Micrograms per liter.

American Analytics of Chatsworth, California.

B = Analyte was detected in the associated method blank.

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

U = Not detected; numerical value represents the Method Detection Limit for that compound.

L = Laboratory contaminant.

Notes:

AmA

^{*} Low-level 1,4-dioxane analyses were performed by Ceimic Corporation using modified EPA method 8260 SIM.

TABLE 4 SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN CHATSWORTH FORMATION WELLS, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	RD-57	RD-57	RD-57	RD-58A	RD-58A	RD-58B
FLUTe Sample Port						
Sample Date	05/14/02	08/14/02	08/14/02	02/21/02	11/21/02	02/18/02
Sample Type	Primary	Primary	Dup	Primary	Primary	Primary
Compound (ug/l)		•	***************************************	· · · · · · · · · · · · · · · · · · ·		
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.52 U	0.5 U	0.05 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	1.3 U	1.7 U	0.17 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	1.3 U		
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	1.2 U	U 8.0	0.08 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.52 U	0.4 U	0.04 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.56 U	0.6 U	0.06 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.44 U	1.1.U	0.11 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	U 88.0	0.8 U	0.08 U
1,2-Dichloropropane	0.13 Ų	0.13 U	0.13 U	0.56 U	0.7 U	0.07 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.4 U	1.3 U	0.13 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.44 U	1.1 U	0.11 U
1,4-Dioxane					0.32 U	
2-Butanone	3.8 U	3.8 U	3.8 U	13 U	7 U	0.7 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.6 U	3.6 U	3.6 U	14 U	9.6 U	0.96 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	14 U	11 U	1.1 U
Acetone	3.7 U	3.7 U	3.7 U	20 U	18 U	1.8 U
Benzene	0.1 U	0.1 U	0.1 U	0.44 U	0.5 U	0.05 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.8 U	0.5 U	0.05 U
Bromoform	0.25 U	0.25 U	0.25 U	1.4 U	1.1 U	0.11 U
Bromomethane	0.16 U	0.16 U	0.16 U	1.2 U	1.9 U	0.38 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	1.5 U	14 U	1.4 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.6 U	0.6 U	0.06 U
Chlorobenzene	0.11 U	0.11 U	0.11 U	0.34 U	0.7 U	0.07 U
Chloroethane	0.13 U	0.13 U	0.13 U	1.3 U	1.1 U	0.11 U
Chloroform	0.095 U	0.22 J	0.095 U	0.76 U	0.7 U	0.07 U
Chloromethane	0.14 U	0.17 J	0.14 U	1.1 U	1.4 U	0.16 J,B,L
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	2.3 J	1.9 J	0.09 U
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.44 U	0.8 U	U 80.0
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.72 U	0.6 U	0.06 U
Ethylbenzene	0.099 U	0.099 U	0.099 U	0.72 U	1 U	0.1 U
m,p-Xylenes	0.19 U	0.19 U	0.19 U	2.8 U	2.1 U	0.21 U
Methylene chloride	0.32 J,B,L	3 J,L	4 J,L	0.96 J,L	1.5 U	0.06 U
o-Xylene	0.1 U	0.1 U	0.1 U	0.56 U	0.7 U	0.07 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.64 U	0.8 U	U 80.0
Toluene	0.13 U	0.13 U	0.13 U	0.37 U	0.7 U	0.07 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.44 U	0.9 U	0.09 U
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.76 U	0.7 U	0.07 U
Trichloroethene	0.13 U	0.13 U	0.13 U	290	200	0.06 U
Trichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.68 U	0.7 U	0.07 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.84 U	0.6 U	0.06 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

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Well Identifier	RD-58B	RD-58B	RD-58B	RD-58B	RD-58B	RD-58B
FLUTe Sample Port						
Sample Date	02/18/02	02/18/02	05/06/02	08/12/02	08/12/02	11/07/02
Sample Type	Dup	Split	Primary	Primary	Split	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.05 U	0.3 U	0.088 U	0.088 U	0.3 U	0.088 U
1,1,2,2-Tetrachioroethane	0.17 U	0.3 U	0.29 U	0.29 U	0.3 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane		0.2 U	1.2 U	1.2 U	0.2U	1.2 U
1,1,2-Trichloroethane	0.08 U	0.2 U	0.21 U	0.21 U	0.2 U	0.21 U
1,1-Dichloroethane	0.04 U	0.2 U	0.12 U	0.12 U	0.2 U	0.12 U
1,1-Dichloroethene	0.06 U	0.2 U	0.11 U	0.11 U	0.2 U	0.11 U
1,2-Dichlorobenzene	0.11 U	0.2 U	0.12 U	0.12 U	0.2 U	0.12 U
1,2-Dichloroethane	0.08 U	0.3 U	0.18 U	0.18 U	0.3 U	0.18 U
1,2-Dichloropropane	0.07 U	0.2 U	0.13 U	0.13 U	0.5 U	0.13 U
1,3-Dichlorobenzene	0.13 U	0.1 U	0.12 U	0.12 U	0.1 U	0.12 U
1,4-Dichlorobenzene	0.11 U	0.2 U	0.12 U	0.12 U	0.1 U	0.12 U
1,4-Dioxane		40-07-04			***	
2-Butanone	0.7 U	2 U	3.8 U	3.8 U	2 U	3.8 U
2-Chloroethyl Vinyl Ether		0.3 U			0.3 U	
2-Hexanone	0.96 U	0.5 U	3.6 U	3.6 U	0.5 U	3.6 U
4-Methyl-2-pentanone	1.1 U	0.3 U	1.7 U	1.7 U	0.3 U	1.7 U
Acetone	1.8 J,L	0.9 U	3.7 U	3.7 U	0.9 U	3.9 J,L
Benzene	0.05 U	0.2 U	0.1 U	0.1 U	0.2 U	0.1 U
Bromodichloromethane	0.05 U	0.2 U	0.12 U	0.12 U	0.2 U	0.12 U
Bromoform	0.11 U	0.3 U	0.25 U	0.25 U	0.3 U	0.25 U
Bromomethane	0.38 U	0.4 U	0.16 U	0.16 U	0.4 U	0.16 U
Carbon disulfide	1.4 U	0.2 U	0.52 U	0.52 U	0.2 U	0.52 U
Carbon tetrachloride	0.06 U	0.5 U	0.12 U	0.12 U	0.5 ป	0.12 U
Chiorobenzene	0.07 U	0.2 U	0.11 U	0.11 U	0.2 U	0.11 U
Chloroethane	0.11 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
Chloroform	0.07 U	0.2 U	0.095 U	0.095 U	0.2 U	0.095 U
Chloromethane	0.14 U	0.4 U	0.14 U	0.14 U	0.4 U	0.49 J
cis-1,2-Dichloroethene	U 60.0	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
cis-1,3-Dichloropropene	U 80.0	0.2 U	0.12 U	0.12 U	0.2 U	0.12 U
Dibromochloromethane	0.06 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
Ethylbenzene	0.1 U	0.2 U	0.099 U	0.099 U	0.2 U	0.099 U
m,p-Xylenes	0.21 U	0.3 U	0.19 U	0.19 U	0.3 U	0.19 U
Methylene chloride	0.06 U	2 U	0.24 U	0.24 U	2 U	0.24 U
o-Xylene	0.07 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	U 80.0	0.2 U	0.13 U	0.13 U	0.2 U	0.13 U
Toluene	0.07 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
trans-1,2-Dichloroethene	0.09 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
trans-1,3-Dichloropropene	0.07 U	0.3 U	0.17 U	0.17 U	0.3 U	0.17 U
Trichloroethene	0.06 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
Trichlorofluoromethane	0.07 U	0.2 U	0.21 U	0.21 U	0.2 U	0.21 U
Vinyl chloride	0.06 U	0.3 U	0.13 U	0.13 U	0.3 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	AmA	DMA	DMA	AmA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	DD COD	DD 500	DD 500	DD FOC	DD 504	DD 504
Well Identifier	RD-58B	RD-58C	RD-58C	RD-58C	RD-59A	RD-59A
FLUTe Sample Port	11/19/02	02/18/02	00/40/00	44/40/00	00/00/00	05/4//00
Sample Date		_	08/12/02	11/19/02	02/28/02	05/14/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)	0.0511	0.4211	0.00011	0.05.11	0.40.11	0.000.11
1,1,1-Trichloroethane	0.05 U	0.13 U	U 880.0	0.05 U	0.13 U	U 880.0
1,1,2,2-Tetrachloroethane	0.17 U	0.33 U	0.29 U	0.17 U	0.33 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.0011	0.32 U	1.2 U		0.32 U	1.2 U
1,1,2-Trichloroethane	U 80.0	0.31 U	0.21 U	U 80.0	0.31 U	0.21 U
1,1-Dichloroethane	0.04 U	0.13 U	0.12 U	0.04 U	0.13 U	0.12 U
1,1-Dichloroethene	0.06 U	0.14 U	0.11 U	0.06 U	0.14 U	0.11 U
1,2-Dichlorobenzene	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U
1,2-Dichloroethane	0.08 U	0.22 U	0.18 U	U 80.0	0.22 U	0.18 U
1,2-Dichloropropane	0.07 U	0.14 U	0.13 U	0.07 U	0.14 U	0.13 U
1,3-Dichlorobenzene	0.13 U	0.1 U	0.12 U	0.13 U	0.1 U	0.12 U
1,4-Dichlorobenzene	0.11 U	0.11 U	0.12 U	0.11 U	0.11 U	0.12 U
1,4-Dioxane	4.16 J	***		0.32 U,J		
2-Butanone	0.7 U	3.2 U	3.8 U	0.7 U	3.2 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	0.96 U	3.5 U	3.6 U	0.96 U	3.5 U	3.6 U
4-Methyl-2-pentanone	1.1 U	3.4 U	1.7 U	1.1 U	3.4 U	1.7 U
Acetone	1.8 U	5 U	3.7 U	1.8 U	5 U	3.7 U
Benzene	0.05 U	0.11 U	0.1 U	0.05 U	0.11 U	0.1 U
Bromodichloromethane	0.05 U	0.2 U	0.12 U	0.05 U	0.2 U	0.12 U
Bromoform	0.11 U	0.34 U	0.25 U	0.11 U	0.34 U	0.25 U
Bromomethane	0. 19 U	0.3 U	0.16 U	0.19 U	0.3 U	0.16 U
Carbon disulfide	1.4 U	0.38 U	0.52 U	1.4 U	0.38 U	0.52 U
Carbon tetrachloride	0.06 U	0.15 U	0.12 U	0.06 U	0.15 U	0.12 U
Chlorobenzene	0.07 U	0.085 U	0.11 U	0.07 U	0.085 U	0.11 U
Chloroethane	0.11 U	0.33 U	0.13 U	0.11 U	0.33 U	0.13 U
Chloroform	0.07 U	0.19 U	0.095 U	0.07 U	0.19 U	0.095 U
Chloromethane	0.15 J	0.27 U	0.14 U	0.14 U	0.27 U	0.14 U
cis-1,2-Dichloroethene	0.09 U	0.73 J	0.58 J	0.9 J	0.14 U	0.13 U
cis-1,3-Dichloropropene	U 80.0	0.11 U	0.12 U	U 80.0	0.11 U	0.12 U
Dibromochloromethane	0.06 U	0.18 U	0.13 U	0.06 U	0.18 U	0.13 U
Ethylbenzene	0.1 U	0.18 U	0.099 U	0.1 U	0.18 U	0.099 U
m,p-Xylenes	0.21 U	0.69 U	0.19 U	0.21 U	0.69 U	0.19 U
Methylene chloride	0.06 U	0.22 U	0.24 U	0.06 U	0.22 U	0.25 J,B,L
o-Xylene	0.07 U	0.14 U	0.1 U	0.07 U	0.14 U	0.1 U
Tetrachloroethene	U 80.0	0.16 U	0.13 U	U 80.0	0.16 U	0.13 U
Toluene	0.07 U	0.16 J,V	0.13 U	0.07 U	0.093 U	0.13 U
trans-1,2-Dichloroethene	0.09 U	0.11 U	0.13 U	0.0 9 U	0.11 U	0.13 U
trans-1,3-Dichloropropene	0.07 U	0.19 U	0.17 U	0.07 U	0.19 U	0.17 U
Trichloroethene	0.06 U	0.14 U	0.13 U	0.06 U	0.14 U	0.13 U
Trichlorofluoromethane	0.07 U	0.17 U	0.21 U	0.07 U	0.17 U	0.21 U
Vinyl chloride	0.06 U	1.1	1	1.2	0.21 U	0.13 U
Method ·	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

144-114-1	55.504		55 505		55.505	
Well Identifier	RD-59A	RD-59A	RD-59B	RD-59B	RD-59B	RD-59B
FLUTe Sample Port		444000			00/00/00	44440400
Sample Date	08/08/02	11/12/02	02/28/02	05/02/02	08/08/02	11/12/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)		0.00011	0 (0 !!	0.00011	0.000.11	0.000.11
1,1,1-Trichloroethane	0.088 U	U 880.0	0.13 U	U 880.0	U 880.0	U 880.0
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.33 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	0.32 U	1.2 U	1.2 U	1.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.31 U	0.21 U	0.21 U	0.21 U
1,1-Dichloroethane	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U	0.12 U
1,1-Dichloroethene	0.11 U	0.11 U	0.14 U	0.11 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U
1,2-Dichloroethane	0.18 U	0.18 U	0.22 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U
1,4-Dioxane						
2-Butanone	3.8 U	3.8 U	3.2 U	3.8 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.6 U	3.6 U	3.5 U	3.6 U	3.6 U	3.6 U
4-Methyl-2-pentanone	1.7 U	1.7 U	3.4 U	1.7 U	1.7 U	1.7 U
Acetone	3.7 U	3.7 U	5 U	3.7 U	3.7 U	3.7 U
Benzene	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U	0.12 U
Bromoform	0.25 U	0.25 U	0.34 U	0.25 U	0.25 U	0.25 U
Bromomethane	0.16 U	0.16 U	0.3 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	0.52 U	0.52 U	0.38 U	0.52 U	0.52 U	0.52 U
Carbon tetrachloride	0.12 U	0.12 U	0.15 U	0.12 U	0.12 U	0.12 U
Chlorobenzene	0.11 U	0.11 U	0.085 U	0.11 U	0.11 U	0.11 U
Chloroethane	0.13 U	0.13 U	0.33 U	0.13 U	0.13 U	0.13 U
Chloroform	0.095 U	0.095 U	0.19 U	0.095 U	0.095 U	0.095 U
Chloromethane	0.14 U	0.14 U	0.27 U	0.14 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U	0.13 U
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.13 U	0.13 U	0.18 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	0.099 U	0.099 U	0.18 U	0.099 U	0.099 U	0.099 U
m,p-Xylenes	0.19 U	0.19 U	0.69 U	0.19 U	0.19 U	0.19 U
Methylene chloride	0.24 U	0.24 U	0.22 U	0.24 U	0.24 U	0.24 U
o-Xylene	0.1 U	0.1 U	0.14 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	0.13 U	0.16 U	0.13 U	0.13 U	0.13 U
Toluene	0.13 U	0.13 U	0.093 U	0.24 J,V	0.13 U	0.13 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U	0.13 U
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.19 U	0.17 U	0.17 U	0.17 U
Trichloroethene	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U	0.13 U
Trichlorofluoromethane	0.21 U	0.21 U	0.17 U	0.21 U	0.21 U	0.21 U
Vinyl chloride	0.13 U	0.13 U	0.21 U	0.13 U	0.13 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-59C	RD-59C	RD-59C	PD FOC	DD 60	DD 60
FLUTe Sample Port	KD-59C	KD-39C	KD-59C	RD-59C	RD-60	RD-60
Sample Date	02/28/02	05/02/02	08/08/02	11/10/00	00/04/00	00/04/00
Sample Type		05/02/02		11/12/02	03/04/02	03/04/02
Compound (ug/l)	Primary	Primary	Primary	Primary	Primary	Dup
1,1,1-Trichloroethane	0.13 U	0.088 U	0.088 U	0.088 U	0.6511	0.6511
1,1,2,2-Tetrachloroethane	0.13 U	0.088 U 0.29 U	0.088 U 0.29 U		0.65 U	0.65 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.33 U 0.32 U			0.29 U	1.6 U	1.6 U
1,1,2-Trichloroethane	0.32 U 0.31 U	1.2 U	1.2 U	1.2 U	1.6 U	1.6 U
1,1-Dichloroethane		0.21 U	0.21 U	0.21 U	1.6 U	1.6 U
1,1-Dichloroethene	0.13 U	0.12 U	0.12 U	0.12 U	3.6 J	3.2 J
1,2-Dichlorobenzene	0.14 U	0.11 U	0.11 U	0.11 U	3.6 J	3 J
1,2-Dichloroethane	0.11 U	0.12 U	0.12 U	0.12 U	0.55 U	0.55 U
	0.22 U	0.18 U	0.18 U	0.18 U	17	14
1,2-Dichloropropane	0.14 U	0.13 U	0.13 U	0.13 U	0.7 U	0.7 U
1,3-Dichlorobenzene	0.1 U	0.12 U	0.12 U	0.12 U	0.5 U	0.5 U
1,4-Dichlorobenzene	0.11 U	0.12 U	0.12 U	0.12 U	0.55 U	0.55 U
1,4-Dioxane 2-Butanone	2211	2011	2011	3.8 U	4611	4611
2-Chloroethyl Vinyl Ether	3.2 U	3.8 U	3.8 U		16 U	16 U
2-Hexanone	 3.5 U	2611	2611	2611	4011	4011
4-Methyl-2-pentanone	3.5 U 3.4 U	3.6 U	3.6 U	3.6 U	18 U	18 U
Acetone	5.4 U	1.7 U 3.7 U	1.7 U 3.7 U	1.7 U 3.7 U	17 U 25 U	17 U 25 U
Benzene	0.11 U	0.1 U	0.1 U	0.1 U	25 U 0.55 U	25 U 0.55 U
Bromodichloromethane	0.11 U 0.2 U	0.1 U 0.12 U	0.1 U 0.12 U	0.1 U 0.12 U	0.55 U 1 U	0.55 U 1 U
Bromoform	0.2 U	0.12 U 0.25 U	0.12 U 0.25 U	0.12 U 0.25 U	1.7 U	1.7 U
Bromomethane	0.3 U	0.25 U 0.16 U	0.25 U	0.23 U 0.16 U	1.7 U	1.7 U
Carbon disulfide	0.38 U	0.10 U	0.10 U	0.10 U	1.9 U	1.9 U
Carbon tetrachloride	0.35 U	0.12 U	0.12 U	0.12 U	0.75 U	0.75 U
Chlorobenzene	0.13 U	0.12 U	0.12 U	0.12 U	0.73 U 0.42 U	0.42 U
Chloroethane	0.33 U	0.11 U	0.11 U	0.11 U	1.6 U	1.6 U
Chloroform	0.19 U	0.13 U	0.095 U	0.095 U	0.95 U	0.95 U
Chloromethane	0.13 U 0.27 U	0.093 U 0.14 U	0.093 C 0.14 U	0.093 G 0.14 U	1.4 U	1.4 U
cis-1,2-Dichloroethene	0.27 U	0.14 U	0.14 U	0.14 U	1.4 0	13
cis-1,3-Dichloropropene	0.11 U	0.13 U	0.12 U	0.13 U	0.55 U	0.55 U
Dibromochloromethane	0.11 U	0.12 U	0.12 U	0.12 U	0.9 U	0.9 U
Ethylbenzene	0.18 U	0.099 U	0.099 U	0.099 U	1.8 J	0.9 U
m,p-Xylenes	0.69 U	0.033 U	0.030 U	0.19 U	3.4 U	3.4 U
Methylene chloride	0.22 U	0.24 U	0.16 U	0.24 U	7.6 J	4.7 J
o-Xylene	0.14 U	0.1 U	0.1 U	0.1 U	1.4 J	0.7 U
Tetrachloroethene	0.14 U	0.13 U	0.13 U	0.13 U	0.8 U	0.8 U
Toluene	0.093 U	0.18 J,V	0.13 U	0.13 U	0.46 U	0.46 U
trans-1,2-Dichloroethene	0.11 U	0.13 U	0.13 U	0.13 U	0.55 U	0.55 U
trans-1,3-Dichloropropene	0.19 U	0.17 U	0.17 U	0.17 U	0.95 U	0.95 U
Trichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	390	380
Trichlorofluoromethane	0.17 U	0.21 U	0.21 U	0.21 U	0.85 U	0.85 U
Vinyl chloride	0.21 U	0.13 U	0.13 U	0.13 U	1 U	1 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-60	RD-61	RD-61	RD-61	RD-61	RD-61
FLUTe Sample Port				***		
Sample Date	08/23/02	02/20/02	05/06/02	05/06/02	08/15/02	11/01/02
Sample Type	Primary	Primary	Primary	Dup	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.44 U,HS	0.13 U	0.088 U	0.088 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	1.4 U,HS	0.33 U	0.29 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	6 U,HS	0.32 U	1.2 U	1.2 U	1.2 U	1.2 U
1,1,2-Trichloroethane	1 U,HS	0.31 U	0.21 U	0.21 U	0.21 U	0'.21 U
1,1-Dichloroethane	3 J,HS	0.13 U	0.12 U	0.12 U	0.12 U	0.12 U
1,1-Dichloroethene	3 J,HS	0.14 U	0.11 U	0.11 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.6 U,HS	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U
1,2-Dichloroethane	10 HS	0.22 U	0.18 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	0.65 U,HS	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.6 U,HS	0.1 U	0.12 U	0.12 U	0.12 U	0.13 J,C
1,4-Dichlorobenzene	0.6 U,HS	0.11 U	0.12 U	0.12 U	0.12 U	0.16 J,C
1,4-Dioxane					***	
2-Butanone	19 U,HS	3.2 U	3.8 U	3.8 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether		***				-
2-Hexanone	18 U,HS	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U
4-Methyl-2-pentanone	8.5 U,HS	3.4 U	1.7 U	1.7 U	1.7 U	1.7 U
Acetone	18 U,HS	5 U	3.7 U	3.7 U	3.7 U	3.7 U
Benzene	0.5 U,HS	0.11 U	0.1 U	0.1 U	0.1 U	0.1 U
Bromodichloromethane	0.6 U,HS	0.2 U	0.12 U	0.12 U	0.12 U	0.12 U
Bromoform	1.2 U,HS	0.34 U	0.25 U	0.25 U	0.25 U	0.25 ป
Bromomethane	0.8 U,HS	0.3 U	0.16 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	2.6 U,HS	0.38 U	0.52 U	1.2 J	0.52 U	0.52 U
Carbon tetrachloride	0.6 U,HS	0.15 U	0.12 U	0.12 U	0.12 U	0.12 U
Chlorobenzene	0.55 U,HS	0.085 U	0.11 U	0.11 U	0.11·U	0.11 U
Chloroethane	0.65 U,HS	0.33 U	0.13 U	0.13 U	0.13 U	0.13 U
Chloroform	0.48 U,HS	0.19 U	0.095 U	0.095 U	0.095 U	0.095 U
Chloromethane	0.7 U,HS	0.27 U	0.14 U	0.14 U	0.14 U ·	0.14 U
cis-1,2-Dichloroethene	12 HS	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
cis-1,3-Dichloropropene	0.6 U,HS	0.11 U	0.12 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.65 U,HS	0.18 U	0.13 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	0.5 U,HS	0.18 U	0.099 U	0.099 U	0.099 U	0.099 U
m,p-Xylenes	0.95 U,HS	0.69 U	0.19 U	0.19 U	0.19 U	0.19 U
Methylene chloride	1.2 U,HS	0.51 J,B,L	0.24 U	0.24 U	0.24 U	0.24 U
o-Xylene	0.5 U,HS	0.14 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.65 U,HS	0.16 U	0.13 U	0.13 U	0.13 U	0.13 U
Toluene	0.65 U,HS	0.093 U	0.13 U	0.13 U	0.13 U	0.13 U
trans-1,2-Dichloroethene	0.65 U,HS	0.11 U	0.13 U	0.13 U	0.13 U	0.13 U
trans-1,3-Dichloropropene	0.85 U,HS	0.19 U	0.17 U	0.17 U	0.17 U	0.17 U
Trichloroethene .	280 HS	0.14 U	0.13 U	0.13 U	0.13 U	0.13 U
Trichlorofluoromethane	1 U,HS	0.17 U	0.21 U	0.21 U	0.21 U	0.21 U
Vinyl chloride	0.65 U,HS	0.21 U	0.13 U	0.13 U	0.13 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-62	RD-62	RD-62	RD-62	RD-63	RD-63
FLUTe Sample Port						
Sample Date	02/19/02	05/06/02	08/09/02	11/01/02	02/14/02	08/16/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	U 880.0	U 880.0	U 880.0	0.13 U	0.088 U
1,1,2,2-Tetrachloroethane	0.33 U	0.29 U	0.29 U	0.29 U	0.33 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U	1.2 U	1.2 U	1.2 U	0.32 U	1.2 U
1,1,2-Trichloroethane	0.31 U	0.21 U	0.21 U	0.21 U	0.31 U	0.21 U
1,1-Dichloroethane	0.13 U	0.12 U	0.12 U	0.12 U	0.6 J	0.81 J
1,1-Dichloroethene	0.14 U	0.11 U	0.11 U	0.11 U	1.3	1.6
1,2-Dichlorobenzene	0.11 U	0.12 U	0.12 U	0.15 J	0:11 U	0.12 U
1,2-Dichloroethane	0.22 U	0.18 U	0.18 U	0.18 U	0.22 U	0.18 U
1,2-Dichloropropane	0.14 U	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U
1,3-Dichlorobenzene	0.1 U	0.12 U	0.12 U	0.19 J,C	0.1 U	0.12 U
1,4-Dichlorobenzene	0.11 U	0.12 U	0.12 U	0.2 J,C	0.11 U	0.12 U
1,4-Dioxane					***	
2-Butanone	3.2 U	3.8 U	3.8 U	3.8 U	3.2 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.5 U	3.6 U	3.6 U	3.6 U	3.5 U	3.6 U
4-Methyl-2-pentanone	3.4 U	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U
Acetone	5 U	3.7 U	3.7 U	3.7 U	5 U	3.7 U
Benzene	0.11 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U
Bromodichloromethane	0.2 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U
Bromoform	0.34 U	0.25 U	0.25 U	0.25 U	0.34 U	0.25 U
Bromomethane	0.3 U	0.16 U	0.16 U	0.16 U	0.3 U	0.16 U
Carbon disulfide	0.38 U	0.52 U	0.52 U	0.52 U	0.38 U	0.52 U
Carbon tetrachloride	0.15 U	0.12 U	0.12 U	0.12 U	0.15 U	0.12 U
Chlorobenzene	0.085 U	0.11 U	0.11 U	0.11 U	0.085 U	0.11 U
Chloroethane	0.33 U	0.13 U	0.13 U	0.13 U	0.33 U	0.13 U
Chloroform	0.19 U	0.095 U	0.095 U	0.095 U	0.19 U	0.095 U
Chloromethane	0.27 U	0.14 U	0.14 U	0.14 U	0.27 U	0.14 U
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	2.6	3.8
cis-1,3-Dichloropropene	0.11 U	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U
Dibromochloromethane	0.18 U	0.13 U	0.13 U	0.13 U	0.18 U	0.13 U
Ethylbenzene	0.18 U	0.099 U	0.099 U	0.15 J,C	0.18 U	0.099 U
m,p-Xylenes	0.69 U	0.19 U	0.19 U	0.21 J,C	0.69 U	0.19 U
Methylene chloride	0.22 U	0.24 U	0.24 U	0.24 U	0.52 J,L	0.24 U
o-Xylene	0.14 U	0.1 U	0.1 U	0.1 U	0.14 U	0.1 U
Tetrachloroethene	0.16 U	0.13 U	0.13 U	0.13 U	0.16 U	0.13 U
Toluene	0.093 U	0.13 U	0.13 U	0.13 U	0.13 J,V	0.13 U
trans-1,2-Dichloroethene	0.11 U	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U
trans-1,3-Dichloropropene	0.19 U	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U
Trichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	4.5	7.5
Trichlorofluoromethane	0.17 U	0.21 U	0.21 U	0.21 U	0.17 U	0.21 U
Vinyl chloride	0.21 U	0.13 U	0.13 U	0.13 U	0.21 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-64	RD-65	RD-66	RD-66	RD-66	RD-66
FLUTe Sample Port			Z6	Z6		
Sample Date	02/28/02	02/28/02	03/06/02	05/09/02	08/19/02	08/19/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Dup
Compound (ug/l)						
1,1,1-Trichloroethane	0.65 U	9	0.13 U	0.088 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	1.6 U	0.33 U	0.33 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.6 U	1.8 J	0.32 U	1.2 U	1.2 U	1,2 U
1,1,2-Trichloroethane	1.6 U	0.31 U	0.31 U	0.21 U	0.21 U	0.21 U
1,1-Dichloroethane	0.65 U	22	0.13 U	0.12 U	0.12 U	0.12 U
1,1-Dichloroethene	1 J	81	0.14 U	0.11 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.55 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
1,2-Dichloroethane	1.1 U	1.9	0.22 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	0.7 U	0.14 U	0.14 U	0.13 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.5 U	0.1 U	0.1 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.55 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
1,4-Dioxane						
2-Butanone	16 U	3.2 U	3.2 U	3.8 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	18 U	3.5 U	3.5 U	3.6 U	3.6 U	3.6 U
4-Methyl-2-pentanone	17 U	3.4 U	3.4 U	1.7 U	1.7 U	1.7 U
Acetone	25 U	5 U	5 U	3.7 U	3.7 U	3.7 U
Benzene	0.55 U	0.11 U	0.14 J,F	0.1 U	0.1 U	0.1 U
Bromodichloromethane	1 U	0.2 U	0.2 U	0.12 U	0.12 U	0.12 U
Bromoform	1.7 U	0.34 U	0.34 U	0.25 U	0.25 U	0.25 U
Bromomethane	1.5 U	0.3 U	0.3 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	1.9 U	0.38 U	0.38 U	0.52 U	0.52 U	0.52 U
Carbon tetrachloride	0.75 U	0.15 U	0.15 U	0.12 U	0.12 U	0.12 U
Chlorobenzene	0.42 U	0.085 U	0.085 U	0.11 U	0.11 U	0.11 U
Chloroethane	1.6 U	0.33 U	0.33 U	0.13 U	0.13 U	0.13 U
Chloroform	0.95 U	0.81 J	0.19 U	0.095 U	0.095 U	0.095 U
Chloromethane	1.4 U	0.27 U	0.27 U	0.14 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	38	17	0.14 U	0.13 U	0.13 U	0.13 U
cis-1,3-Dichloropropene	0.55 U	0.11 U	0.11 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.9 U	0.18 U	0.18 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	0.9 U	0.18 U	0.18 U	0.099 U	0.099 U	0.099 U
m,p-Xylenes	3.4 U	0.69 U	0.69 U	0.19 U	0.19 U	0.19 U
Methylene chloride	1.5 J,B,L	0.36 J,B,L	0.25 J,L	0.24 U	0.24 U	0.24 U
o-Xylene	0.7 U	0.14 U	0.14 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.8 U	0.2 J	0.16 U	0.13 U	0.13 U	0.13 U
Toluene	0.46 U	0.093 U	0.093 U	0.13 U	0.13 U	0.13 U
trans-1,2-Dichloroethene	0.55 U	0.27 J	0.11 U	0.13 U	0.13 U	0.13 U
trans-1,3-Dichloropropene	0.95 U	0.19 U	0.19 U	0.17 U	0.17 U	0.17 U
Trichloroethene	420	420	0.14 U	0.13 U	0.13 U	0.13 U
Trichlorofluoromethane	0.85 U	1	0.17 U	0.21 U	0.21 U	0.21 U
Vinyl chloride	1 U	0.21 U	0.21 U	0.13 U	0.13 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Mall Identifier	DD cc	DD 66	DD 67	DD 67	DD 67	DD 004
Well Identifier	RD-66	RD-66	RD-67	RD-67	RD-67	RD-68A
FLUTe Sample Port	00/40/00	40100400			44/07/00	
Sample Date	08/19/02	10/30/02	03/06/02	08/28/02	11/07/02	02/28/02
Sample Type	Split	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)			 			
1,1,1-Trichloroethane	0.3 U	U 880.0	0.13 U	0.088 U	U 880.0	0.13 U
1,1,2,2-Tetrachloroethane	0.3 U	0.29 U	0.33 U	0.29 U	0.29 U	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2U	1.2 U	0.32 U	1.2 U	1.2 U	0.32 U
1,1,2-Trichloroethane	0.2 U	0.21 U	0.31 U	0.21 U	0.21 U	0.31 U
1,1-Dichloroethane	0.2 U	0.12 U	0.13 U	0.12 U	0.12 U	0.13 U
1,1-Dichloroethene	0.2 U	0.11 U	0.14 U	0.11 U	0.11 U	0.14 U
1,2-Dichlorobenzene	0.2 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U
1,2-Dichloroethane	0.3 U	0.18 U	0.22 U	0.18 U	0.18 U	0.22 U
1,2-Dichloropropane	0.5 U	0.13 U	0.14 U	0.13 U	0.13 U	0.14 U
1,3-Dichlorobenzene	0.1 U	0.12 U	0.1 U	0.12 U	0.12 U	0.1 U
1,4-Dichlorobenzene	0.1 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U
1,4-Dioxane		***				***
2-Butanone	2 U	3.8 U	3.2 U	3.8 U	3.8 U	3.2 U
2-Chloroethyl Vinyl Ether	0.3 U					
2-Hexanone	0.5 U	3.6 U	3.5 U	3.6 U	3.6 U	3.5 U
4-Methyl-2-pentanone	0.3 U	1.7 U	3.4 U	1.7 U	1.7 U	3.4 U
Acetone	0.9 U	6.4 J	5 U	3.7 U	7.9 J	5 U
Benzene	0.2 U	0.1 U	0.11 U	0.1 U	0.1 U	0.11 U
Bromodichloromethane	0.2 U	0.12 U	0.2 U	0.12 U	0.12 U	0.2 U
Bromoform	0.3 U	0.25 U	0.34 U	0.25 U	0.25 U	0.34 U
Bromomethane	0.4 U	0.16 U	0.3 U	0.16 U	0.16 U	0.3 U
Carbon disulfide	0.2 U	0.52 U	0.38 U	0.52 U	0.52 U	0.38 U
Carbon tetrachloride	0.5 U	0.12 U	0.15 U	0.12 U	0.12 U	0.15 U
Chlorobenzene	0.2 U	0.11 U	0.085 U	0.11 U	0.11 U	0.085 U
Chloroethane	0.3 U	0.13 U	0.33 U	0.13 U	0.13 U	0.33 U
Chloroform	0.2 U	0.095 U	0.19 U	0.095 U	0.095 U	0.19 U
Chloromethane	0.4 U	0.48 J	0.27 U	0.14 U	0.47 J	0.27 U
cis-1,2-Dichloroethene	0.3 U	0.13 U	0.14 U	0.13 U	0.13 U	0.14 U
cis-1,3-Dichloropropene	0.2 U	0.12 U	0.11 U	0.12 U	0.12 U	0.11 U
Dibromochloromethane	0.3 U	0.13 U	0.18 U	0.13 U	0.13 U	0.18 U
Ethylbenzene	0.2 U	0.099 U	0.18 U	0.099 U	0.099 U	0.18 U
m,p-Xylenes	0.3 U	0.19 U	0.69 U	0.19 U	0.19 U	0.69 U
Methylene chloride	2 U	0.24 U	0.22 U	0.24 U	0.24 U	0.22 U
o-Xylene	0.1 U	0.1 U	0.14 U	0.1 U	0.1 U	0.14 U
Tetrachloroethene	0.2 U	0.13 U	0.16 U	0.13 U	0.13 U	0.16 U
Toluene	0.3 U	0.13 U	0.093 U	0.13 U	0.13 U	0.093 U
trans-1,2-Dichloroethene	0.3 U	0.13 U	0.11 U	0.13 U	0.13 U	0.11 U
trans-1,3-Dichloropropene	0.3 U	0.17 U	0.19 U	0.17 U	0.17 U	0.19 U
Trichloroethene	0.3 U	0.13 U	0.14 U	0.13 U	0.13 U	0.14 U
Trichlorofluoromethane	0.2 U	0.21 U	0.17 U	0.21 U	0.21 U	0.17 U
Vinyl chloride	0.3 U	0.13 U	0.21 U	0.13 U	0.13 U	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	AmA	DMA	DMA	DMA	DMA	DMA

IN CHATSWORTH FORMATION WELLS, 2002

Boeing Santa Susana Field Laboratory

Ventura County, California

Well Identifier	RD-68A	RD-68A	RD-68A	RD-68B	RD-68B	RD-68B
FLUTe Sample Port	***				***	
Sample Date	05/02/02	08/08/02	11/12/02	02/28/02	05/02/02	08/08/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.13 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	0.33 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	0.32 U	1.2 U	1.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	0.31 U	0.21 U	0.21 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.14 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	0.22 U	0.18 U	0.18 U
1,2-Dichloropropane	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
1,4-Dioxane						
2-Butanone	3.8 U	3.8 U	3.8 U	3.2 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.6 U	3.6 U	3.6 U	3.5 U	3.6 U	3.6 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	1.7 U
Acetone	3.7 U	3.8 J,L	3.8 J,L	5 U	3.7 U	3.7 U
Benzene	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
Bromoform	0.25 U	0.25 U	0.25 U	0.34 U	0.25 U	0.25 U
Bromomethane	0.16 U	0.16 U	0.16 U	0.3 U	0.16 U	0.16 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	0.38 U	0.52 U	0.52 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.15 U	0.12 U	0.12 U
Chlorobenzene	0.11 ป	0.11 U	0.11 U	0.085 U	0.11 U	0.11 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.33 U	0.13 U	0.13 U
Chloroform	0.095 U	0.095 U	0.095 U	0.19 U	0.095 U	0.095 U
Chloromethane	0.14 U	0.14 U	0.14 U	0.27 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.33 J	0.13 U	0.13 U
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.18 U	0.13 U	0.13 U
Ethylbenzene	0.099 U	0.099 U	0.099 U	0.18 U	0.099 U	0.099 U
m,p-Xylenes	0.19 U	0.19 U	0.19 U	0.69 U	0.19 U	0.19 U
Methylene chloride	0.24 U	0.24 U	0.24 U	0.22 U	0.24 U	0.24 U
o-Xylene	0.1 U	0.1 U	0.1 U	0.14 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.16 U	0.13 U	0.13 U
Toluene	0.13 U	0.13 U	0.13 U	0.093 U	0.19 J,V	0.13 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.11 U	0.13 U	0.13 U
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.17 U
Trichloroethene	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U
Trichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.17 U	0.21 U	0.21 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.21 U	0.13 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

See last page of Table 4 for footnotes and explanations.

Haley & Aldrich

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TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-68B	RD-69	RD-69	RD-69	RD-70	RD-70
FLUTe Sample Port	TO-00D			ND-03		ND-70
Sample Date	11/12/02	02/26/02	08/29/02	08/29/02	03/12/02	03/12/02
Sample Type	Primary	Primary	Primary	Split	Primary	Dup
Compound (ug/l)	· minary	Timary	· · · · · · · · · · · · · · · · · · ·	Орис	Timaly	Бир
1,1,1-Trichloroethane	0.088 U	0.13 U	0.088 U	0.3 U	0.13 U	0.13 U
1,1,2,2-Tetrachloroethane	0.29 U	0.33 U	0.29 U	0.3 U	0.33 U	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	0.32 U	1.2 U	0.2U	0.32 U	0.32 U
1,1,2-Trichloroethane	0.21 U	0.31 U	0.21 U	0.2 U	0.31 U	0.31 U
1,1-Dichloroethane	0.12 U	0.13 U	0.12 U	0.2 U	0.13 U	0.13 U
1,1-Dichloroethene	0.11 U	0.14 U	0.11 U	0.2 U	0.14 U	0.14 U
1,2-Dichlorobenzene	0.12 U	0.11 U	0.12 U	0.2 U	0:11 U	0.11 U
1,2-Dichloroethane	0.18 U	0.22 U	0.18 U	0.3 U	0.22 U	0.22 U
1,2-Dichloropropane	0.13 U	0.14 U	0.13 U	0.5 U	0.14 U	0.14 U
1,3-Dichlorobenzene	0.12 U	0.1 U	0.12 U	0.1 U	0.1 U	0.1 U
1,4-Dichlorobenzene	0.12 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U
1,4-Dioxane						
2-Butanone	3.8 U	3.2 U	3.8 U	2 U	3.2 U	3.2 U
2-Chloroethyl Vinyl Ether				0.3 U		
2-Hexanone	3.6 U	3.5 U	3.6 U	0.5 U	3.5 U	3.5 U
4-Methyl-2-pentanone	1.7 U	3.4 U	1.7 U	0.3 U	3.4 U	3.4 U
Acetone	3.7 U	5 U	3.7 U	0.9 U	5 U	5 U
Benzene	0.1 U	0.11 U	0.1 U	0.2 U	0.11 U	0.11 U
Bromodichloromethane	0.12 U	0.2 U	0.12 U	0.2 U	0.2 U	0.2 U
Bromoform	0.25 U	0.34 U	0.25 U	0.3 U	0.34 U	0.34 U
Bromomethane	0.16 U	0.3 U	0.16 U	0.4 U	0.3 U	0.3 U
Carbon disulfide	0.52 U	0.38 U	0.52 U	0.2 U	0.38 U	0.38 U
Carbon tetrachloride	0.12 U	0.15 U	0.12 U	0.5 U	0.15 U	0.15 U
Chlorobenzene	0.11 U	0.085 U	0.11 U	0.2 U	0.085 U	0.085 U
Chloroethane	0.13 U	0.33 U	0.13 U	0.3 U	0.33 U	0.33 U
Chloroform	0.095 U	0.19 U	0.095 U	0.2 U	0.19 U	0.19 U
Chloromethane	0.14 U	0.27 U	0.14 U	0.4 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	0.13 U	0.14 U	0.13 U	0.3 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	0.12 U	0.11 U	0.12 U	0.2 U	0.11 U	0.11 U
Dibromochloromethane	0.13 U	0.18 U	0.13 U	0.3 U	0.18 U	0.18 U
Ethylbenzene	0.099 U	0.18 U	0.099 U	0.2 U	0.18 U	0.18 U
m,p-Xylenes	0.19 U	0.69 U	0.19 U	0.3 U	0.69 U	0.69 U
Methylene chloride	0.24 U	0.22 U	0.24 U	2 U	0.22 U	0.22 U
o-Xylene	0.1 U	0.14 U	0.1 U	0.1 U	0.14 U	0.14 U
Tetrachloroethene	0.13 U	0.16 U	0.13 U	0.2 U	0.16 U	0.16 U
Toluene	0.13 U	0.093 U	0.13 U	0.3 U	0.093 U	0.093 U
trans-1,2-Dichloroethene	0.13 U	0.11 U	0.13 U	0.3 U	0.11 U	0.11 U
trans-1,3-Dichloropropene	0.17 U	0.19 U	0.17 U	0.3 U	0.19 U	0.19 U
Trichloroethene	0.13 U	0.14 U	0.13 U	0.3 U	0.14 U	0.14 U
Trichlorofluoromethane	0.21 U	0.17 U	0.21 U	0.2 U	0.17 U	0.17 U
Vinyl chloride	0.13 U	0.21 U	0.13 U	0.3 U	0.21 U	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	AmA	DMA	DMA

See last page of Table 4 for footnotes and explanations. Haley & Aldrich g:\projects\26472-roc\reports\m431annual\tables\M431.T04.xls

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	RD-70	RD-70	RD-70	RD-70	RD-70	RD-70
FLUTe Sample Port			****		W-70-00	
Sample Date	05/09/02	05/09/02	08/15/02	11/13/02	11/13/02	11/13/02
Sample Type	Primary	Dup	Primary	Primary	Dup	Split
Compound (ug/l)						
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.088 U	0.088 U	0.2 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.4 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	0.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.2 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.3 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U	0.2 U
1,2-Dichloropropane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.4 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U
1,4-Dioxane					***	
2-Butanone	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U	7 U
2-Chloroethyl Vinyl Ether						0.3 U
2-Hexanone	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	0.7 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U	0.2 U
Acetone	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3 U
Benzene	0.1 U	0.1 U	0.67	0.1 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.1 U
Bromoform	0.25 U	0.25 U	0.25 U	0.25 U	0.25 U	0.4 U
Bromomethane	0.16 U	0.16 U	0.16 U	0.16 U	0.16 U	0.5 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	0.52 U	0.52 U	0.2 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.3 U
Chlorobenzene	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.1 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.3 U
Chloroform	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.2 U
Chloromethane	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U	0.4 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.2 U
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
Ethylbenzene	0.099 U	0.099 U	0.25 J	0.099 U	0.099 U	0.2 U
n,p-Xylenes	0.19 U	0.19 U	0.91 J	0.19 U	0.19 U	0.3 U
Methylene chloride	0.71 J,B,L	0.75 J,B,L	0.24 U	0.24 U	0.24 U	3 U
p-Xylene	0.1 U	0.1 U	0.38 J	0.1 U	0.1 U	0.2 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
Foluene	0.13 U	0.13 U	1.4	0.13 U	0.13 U	0.2 U
rans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
rans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.17 U	0.17 U	0.2 U
Frichloroethene	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
Frichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U	0.1 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U	0.2 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	AmA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

			··- · · · · · · · · · · · · · · · · · ·			
Well Identifier	RD-71	RD-71	RD-71	RD-71	RD-71	RD-71
FLUTe Sample Port	Z10	Z10	***			
Sample Date	03/06/02	05/09/02	08/19/02	08/19/02	08/19/02	10/30/02
Sample Type	Primary	Primary	Primary	Dup	Split	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	U 880.0	0.088 U	0.088 U	0.3 U	0.088 U
1,1,2,2-Tetrachloroethane	0.33 U	0.29 U	0.29 U	0.29 U	0.3 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U	1.2 U	1.2 U	1.2 U	0.2U	1.2 U
1,1,2-Trichloroethane	0.31 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U
1,1-Dichloroethane	0.13 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U
1,1-Dichloroethene	0.14 U	0.11 U	0.11 U	0.11 U	0.2 U	0.11 U
1,2-Dichlorobenzene	0.11 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U
1,2-Dichloroethane	0.22 U	0.18 U	0.18 U	0.18 U	0.3 U	0.18 U
1,2-Dichloropropane	0.14 U	0.13 U	0.13 U	0.13 U	0.5 U	0.13 U
1,3-Dichlorobenzene	0.1 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U
1,4-Dichlorobenzene	0.11 U	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U
1,4-Dioxane	***				***	
2-Butanone	3.2 U	3.8 U	3.8 U	3.8 U	2 U	3.8 U
2-Chloroethyl Vinyl Ether					0.3 U	
2-Hexanone	3.5 U	3.6 U	3.6 U	3.6 U	0.5 U	3.6 U
4-Methyl-2-pentanone	3.4 U	1.7 U	1.7 U	1.7 U	0.3 U	1.7 U
Acetone	5 U	3.7 U	3.7 U	3.7 U	0.9 U	12 S
Benzene	0.89 F	0.78	0.1 U	0.1 U	0.2 U	0.1 U
Bromodichloromethane	0.2 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U
Bromoform	0.34 U	0.25 U	0.25 U	0.25 U	0.3 U	0.25 U
Bromomethane	0.3 U	0.16 U	0.16 U	0.16 U	0.4 U	0.16 U
Carbon disulfide	0.38 U	0.52 U	0.52 U	0.52 U	0.2 U	0.52 U
Carbon tetrachloride	0.15 U	0.12 U	0.12 U	0.12 U	0.5 U	0.12 U
Chlorobenzene	0.29 J,F	0.18 J,F	0.11 U	0.11 U	0.2 U	0.11 U
Chloroethane	0.33 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
Chloroform	0.19 U	0.095 U	0.095 U	0.095 U	0.2 U	0.095 U
Chloromethane	0.27 U	0.14 U	0.14 U	0.14 U	0.4 U	0.45 J
cis-1,2-Dichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
cis-1,3-Dichloropropene	0.11 U	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U
Dibromochloromethane	0.18 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
Ethylbenzene	0.18 U	0.099 U	0.099 U	0.099 U	0.2 U	0.099 U
m,p-Xylenes	0.69 U	0.19 U	0.19 U	0.19 U	0.3 U	0.19 U
Methylene chloride	0.23 J,L	0.73 J,B,L	0.24 U	0.24 U	2 U	0.24 U
o-Xylene	0.14 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.16 U	0.13 U	0.13 U	0.13 U	0.2 U	0.13 U
Toluene	0.28 J F	0.25 J,F	0.13 U	0.13 U	0.47 J	0.13 U
trans-1,2-Dichloroethene	0.11 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
trans-1,3-Dichloropropene	0.19 U	0.17 U	0.17 U	0.17 U	0.3 U	0.17 U
Trichloroethene	0.14 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
Trichlorofluoromethane	0.17 U	0.21 U	0.21 U	0.21 U	0.2 U	0.21 U
Vinyl chloride	0.21 U	0.13 U	0.13 U	0.13 U	0.3 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	AmA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

FLUTE Sample Port Sample Date O3/06/02 O3/06/02 O3/06/02 O3/04/02 O3/04/02 O5/14/02	Well Identifier	RD-72	RD-73	LIAD 04	HAR-06	LIAD 07
Sample Date 03/06/02 03/06/02 11/04/02 03/04/02 05/14/02 Sample Type Primary P					nar-uo	
Sample Type				•	02/04/00	
1,1,1-Trichloroethane	•					
1,1,1-Trichloroethane 5.2 U 32 J 0.25 HTV,U,J 0.13 U 0.05 U 1,1,2-Teichachloroethane 13 U 13 U 0.85 HTV,U,J 0.33 U 0.17 U 1,1,2-Trichloroethane 12 U 12 U 0.4 HTV,U,J 0.31 U 0.08 U 1,1-Dichloroethane 12 U 12 U 0.4 HTV,U,J 0.31 U 0.08 U 1,1-Dichloroethane 12 U 12 U 0.4 HTV,U,J 0.31 U 0.08 U 1,2-Dichloroethane 8.8 U 23 O.4 HTV,U,J 0.11 U 0.11 U 0.11 U 1,2-Dichloropropane 4.4 U 4.4 U 0.56 HTV,U,J 0.12 U 0.08 U 1,3-Dichlorobenzene 4.0 U 4.0 U 0.65 HTV,U,J 0.11 U 0.13 U 1,4-Dicknooproprane 4.4 U 4.4 U 0.55 HTV,U,J 0.11 U 0.13 U 1,3-Dichlorobenzene 4.4 U 4.4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,4-Dicknoopropane 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Hexanone 140 U <td< td=""><td></td><td>Primary</td><td>Primary</td><td>Primary</td><td>Primary</td><td>Primary</td></td<>		Primary	Primary	Primary	Primary	Primary
1,1,2,2-Tetrachloroethane 13 U 13 U 0.85 HTV,U,J 0.33 U 0.17 U 1,1,2-Trichloro-1,2,2-trifloroethane 12 U 12 U 20 A HTV,U,J 0.31 U 0.08 U 1,1-Dichloroethane 22 J 57 0.59 HTV,J 13 0.27 J 1,1-Dichloroethane 170 1200 0.44 HTV,J 55 12 1,2-Dichlorobenzene 4,4 U 4,4 U 0.55 HTV,U,J 0.11 U 0.07 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.08 U 0.22 U 0.22 U 0.22 U 0.22 U 0.22 U 0.22 U 0.22 U 0.22 U 0.22 U					0.40.11	
1,1,2-Trichloro-1,2,2-trifluoreethane 13 U 100 J						
1,1,2-Trichloroethane 12 U 12 U 0.4 HTV,U,J 0.31 U 0.08 U 1,1-Dichloroethane 22 J 57 0.59 HTV,J 13 0.27 J 1,1-Dichloroethane 170 1200 0.44 HTV,J 55 12 1,2-Dichloroethane 8.8 U 23 0.4 HTV,U,J 0.22 U 0.08 U 1,2-Dichlorophane 5.6 U 5.6 U 0.44 HTV,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.85 HTV,U,J 0.1 U 0.13 U 1,4-Dicklorobenzene 4 U 4 U 0.85 HTV,U,J 0.11 U 0.11 U 1,4-Dioxane				0.85 HTV,U,J		0.17 U
1,1-Dichloroethane 22 J 57 0.59 HTV,J 13 0.27 J 1,1-Dichloroethane 170 1200 0.44 HTV,J 55 12 1,2-Dichloroethane 8.8 U 23 0.4 HTV,U,J 0.22 U 0.08 U 1,2-Dichloropropane 5.6 U 5.6 U 0.44 HTV,U,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.65 HTV,U,J 0.1 U 0.11 U 0.11 U 1,4-Dichlorobenzene 4 U 4.4 U 0.55 HTV,U,J 0.1 U 0.11 U 0.20 U 0.11 U 0.05 U 0.20 U 0.11 U 0.05 U 0.20 U 0.20 U	• •					
1,1-Dichloroethene 170 1200 0.44 HTV,J 55 12 1,2-Dichloroethane 4.4 U 4.4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,2-Dichloroethane 8.8 U 23 0.4 HTV,U,J 0.22 U 0.08 U 1,2-Dichloropropane 5.6 U 5.6 U 0.44 HTV,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.55 HTV,U,J 0.1 U 0.11 U 1,4-Dioxane 0.32 U 2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 4.8 HTV,U,J 3.4 U 1.1 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 0.11 U 4-Methyl-2-pentanone 140 U 140 U 0.5 HTV,U,J 3.4 U						
1,2-Dichlorobenzene 4,4 U 4,4 U 0.55 HTV,U,J 0.21 U 0.08 U 1,2-Dichloroethane 8,8 U 23 0.4 HTV,U,J 0.22 U 0.08 U 1,2-Dichloropenzene 4 U 4 U 0.65 HTV,U,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,4-Dicknee	•					
1,2-Dichloroethane 8.8 U 23 0.4 HTV,U,J 0.22 U 0.08 U 1,2-Dichloropropane 5.6 U 5.6 U 0.44 HTV,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.55 HTV,U,J 0.11 U 0.13 U 1,4-Dichlorobenzene 4,4 U 4,4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,4-Dichlorobenzene 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Butanone 130 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 170 U 6.8 HTV,U,J 5 U 0.95 U 4-Methyl-2-pentanone 140 U 170 U 0.						
1,2-Dichloropropane 5.6 U 5.6 U 0.44 HTV,J 0.14 U 0.07 U 1,3-Dichlorobenzene 4 U 4 U 0.05 HTV,U,J 0.11 U 0.13 U 1,4-Dichlorobenzene 0.32 U 0.11 U 0.11 U 1,4-Dioxane 0.32 U 0.7 U 2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Bernzene 4,4 U 170 0.68 HTV,U,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,U,J 0.34 U 0.11 U Bromoferm 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromoferm 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11	1,2-Dichlorobenzene	4.4 U		0.55 HTV,U,J		
1,3-Dichlorobenzene 4 U 4 U 0.65 HTV,U,J 0.1 U 0.13 U 1,4-Dichlorobenzene 4.4 U 4.4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,4-Dicknane 0.32 U 2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Chloroethyl Vinyl Ether 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5.0 U 1.8 U Benzene 4.4 U 170 0.68 HTV,U,J 0.11 U 0.074 J Bromofichromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U	1,2-Dichloroethane	8.8 U	23	0.4 HTV,U,J	0.22 U	0.08 U
1,4-Dichlorobenzene 4.4 U 4.4 U 0.55 HTV,U,J 0.11 U 0.11 U 1,4-Dioxane 0.32 U 2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Chloroethyl Vinyl Ether 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.32 U 0.06 U Carbon disulfide 15 U 13 U 0.4 HTV,J 0.08 U 0.07 U	1,2-Dichloropropane	5.6 U	5.6 U	0.44 HTV,J	0.14 U	0.07 U
1,4-Dioxane 0.32 U 2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Chioroethyl Vinyl Ether 2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,U,J 0.34 U 0.11 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromodichloromethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.11 U Bromodichloromethane 12 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.4 HTV,U,J 0.48 J 1.4 U Chlo	1,3-Dichlorobenzene	4 U	4 U	0.65 HTV,U,J	0.1 U	0.13 U
2-Butanone 130 U 130 U 3.5 HTV,U,J 3.2 U 0.7 U 2-Chloroethyl Vinyl Ether	1,4-Dichlorobenzene	4.4 U	4.4 U	0.55 HTV,U,J	0.11 U	0.11 U
2-Chloroethyl Vinyl Ether <td>1,4-Dioxane</td> <td></td> <td></td> <td>***</td> <td></td> <td>0.32 U</td>	1,4-Dioxane			***		0.32 U
2-Hexanone 140 U 140 U 4.8 HTV,U,J 3.5 U 0.96 U 4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromodichloromethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.11 U Bromodichloromethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.11 U Bromodichloromethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.11 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.34 U 0.15 U 0.06 U Carbon tetrachloride 6 U 6 U 0.8 HTV,U,J 0.35 U 0.07 U Chlorosethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chlorosethane 11 U 11 U 0.76 HTV,J	2-Butanone	130 U	130 U	3.5 HTV,U,J	3.2 U	0.7 ป
4-Methyl-2-pentanone 140 U 140 U 5.4 HTV,U,J 3.4 U 1.1 U Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromomethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.48 J 1.4 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroethane 11 U 11 U 0.76 U 0.94 HTV,J 0.19 U 0.07 U Chloroethane 11 U 11 U 0.76 U </td <td>2-Chioroethyl Vinyl Ether</td> <td></td> <td></td> <td></td> <td></td> <td></td>	2-Chioroethyl Vinyl Ether					
Acetone 310 J,B,L 400 J,B,L 9 HTV,U,J 5 U 1.8 U Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromomethane 12 U 12 U 0.95 HTV,U,J 0.34 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.48 J 1.4 U Chlorobenzene 3.4 U 3.4 U 0.3 HTV,U,J 0.06 U 0.06 U Chlorobenzene 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chlorobenzene 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chlorobenzene 13 U 13 U 0.5 HTV,U,J 0.32 U 0.14 U </td <td>2-Hexanone</td> <td>140 U</td> <td>140 U</td> <td>4.8 HTV,U,J</td> <td>3.5 U</td> <td>0.96 U</td>	2-Hexanone	140 U	140 U	4.8 HTV,U,J	3.5 U	0.96 U
Benzene 4.4 U 170 0.68 HTV,J 0.11 U 0.074 J Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromomethane 12 U 12 U 0.95 HTV,U,J 0.3 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.48 J 1.4 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.06 U 0.07 U Chlorobethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U Cis-1,3-Dichloroptehene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloroptehene 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U	4-Methyl-2-pentanone	140 U	140 U	5.4 HTV,U,J	3.4 U	1.1 U
Bromodichloromethane 8 U 8 U 0.39 HTV,J 0.2 U 0.05 U Bromoform 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromomethane 12 U 12 U 0.95 HTV,U,J 0.3 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.15 U 0.06 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U Cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.01 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.69 U <td>Acetone</td> <td>310 J,B,L</td> <td>400 J,B,L</td> <td>9 HTV,U,J</td> <td>5 U</td> <td>1.8 U</td>	Acetone	310 J,B,L	400 J,B,L	9 HTV,U,J	5 U	1.8 U
Bromoform 14 U 14 U 14 U 0.55 HTV,U,J 0.34 U 0.11 U Bromomethane 12 U 12 U 0.95 HTV,U,J 0.3 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.15 U 0.06 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.19 U 0.07 U Chloromethane 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloroethene 7.2 U 7.2 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J <td< td=""><td>Benzene</td><td>4.4 U</td><td>170</td><td>0.68 HTV,J</td><td>0.11 U</td><td>0.074 J</td></td<>	Benzene	4.4 U	170	0.68 HTV,J	0.11 U	0.074 J
Bromomethane 12 U 12 U 0.95 HTV,U,J 0.3 U 0.19 U Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.15 U 0.06 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U Cis-1,2-Dichloroptopene 980 550 32 HTV,J 5 2500 HTV,D Cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.69 U	Bromodichloromethane	8 ប	8 U	0.39 HTV,J	0.2 U	0.05 U
Carbon disulfide 15 U 15 U 6.8 HTV,U,J 0.48 J 1.4 U Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.15 U 0.06 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U Cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 28 U 0.1 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J	Bromoform	14 U	14 U	0.55 HTV,U,J	0.34 U	0.11 U
Carbon tetrachloride 6 U 6 U 0.3 HTV,U,J 0.15 U 0.06 U Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J <td< td=""><td>Bromomethane</td><td>12 U</td><td>12 U</td><td>0.95 HTV,U,J</td><td>0.3 U</td><td>0.19 U</td></td<>	Bromomethane	12 U	12 U	0.95 HTV,U,J	0.3 U	0.19 U
Chlorobenzene 3.4 U 3.4 U 0.44 HTV,J 0.085 U 0.07 U Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U Cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D Cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 4.4 U 4.4 U 0.63	Carbon disulfide	15 U	15 U	6.8 HTV,U,J	0.48 J	1.4 U
Chloroethane 13 U 13 U 0.55 HTV,U,J 0.33 U 0.11 U Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U cis-1,2-Dichloropropene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U	Carbon tetrachloride	6 U	6 U	0.3 HTV,U,J	0.15 U	0.06 U
Chloroform 7.6 U 7.6 U 0.94 HTV,J 0.19 U 0.07 U Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J,J <t< td=""><td>Chlorobenzene</td><td>3.4 U</td><td>3.4 U</td><td>0.44 HTV,J</td><td>0.085 U</td><td>0.07 U</td></t<>	Chlorobenzene	3.4 U	3.4 U	0.44 HTV,J	0.085 U	0.07 U
Chloromethane 11 U 11 U 0.76 HTV,J 0.27 U 0.14 U cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 1	Chloroethane	13 U	13 U	0.55 HTV,U,J	0.33 U	0.11 U
cis-1,2-Dichloroethene 980 550 32 HTV,J 5 2500 HTV,D cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichlorofluoromethane 6.8 U 6.8 U <	Chloroform	7.6 U	7.6 U	0.94 HTV,J	0.19 U	0.07 U
cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B <	Chloromethane	11 U	11 U	0.76 HTV,J	0.27 U	0.14 U
cis-1,3-Dichloropropene 4.4 U 4.4 U 0.4 HTV,U,J 0.11 U 0.08 U Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B <	cis-1,2-Dichloroethene	980	550	32 HTV,J	5	2500 HTV,D
Dibromochloromethane 7.2 U 7.2 U 0.3 HTV,U,J 0.18 U 0.06 U Ethylbenzene 7.2 U 7.2 U 0.5 HTV,U,J 0.18 U 0.1 U m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J	cis-1,3-Dichloropropene	4.4 U	4.4 U	0.4 HTV,U,J	0.11 U	0.08 U
m,p-Xylenes 28 U 28 U 1 HTV,U,J 0.69 U 0.21 U Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B	Dibromochloromethane	7.2 U	7.2 U	0.3 HTV,U,J	0.18 U	0.06 U
Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B	Ethylbenzene	7.2 U	7.2 U	0.5 HTV,U,J	0.18 U	0.1 U
Methylene chloride 20 J,L 18 J,L 0.71 HTV,U,J 0.22 U 0.06 U,J o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B	m,p-Xylenes	28 U	28 U	1 HTV,U,J	0.69 U	0.21 U
o-Xylene 5.6 U 5.6 U 0.46 HTV,J 0.14 U 0.07 U Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B			18 J,L	0.71 HTV,U,J	0.22 U	0.06 U,J
Tetrachloroethene 6.4 U 6.4 U 0.44 HTV,J 0.16 U 0.21 J Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B	o-Xylene			0.46 HTV,J	0.14 U	0.07 U
Toluene 3.7 U 3.7 U 0.49 HTV,J 0.093 U 0.18 J trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B	•					
trans-1,2-Dichloroethene 4.4 U 4.4 U 0.63 HTV,J 0.24 J 130 HTV,D trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B						0.18 J
trans-1,3-Dichloropropene 7.6 U 7.6 U 0.35 HTV,U,J 0.19 U 0.07 U Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B				· ·		
Trichloroethene 3000 2600 170 HTV,J 1.2 3400 HTV,D Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B 8260B	•					
Trichlorofluoromethane 6.8 U 6.8 U 0.35 HTV,U,J 0.17 U 0.07 U Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B 8260B	• •					
Vinyl chloride 8.4 U 89 0.37 HTV,J 1.6 120 HTV,D Method 8260B 8260B 8260B 8260B 8260B						
Method 8260B 8260B 8260B 8260B						
and the second s	Lab	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	HAR-08	HAR-16	HAR-17	HAR-18	HAR-18	HAR-18
FLUTe Sample Port	FIAR-00	Comp	DAR-17	DAR-10	HAR-10	HAR-10
Sample Date	11/20/02	11/06/02	05/07/02	03/04/02	03/04/02	08/14/02
Sample Type	Primary	Primary	Primary	Primary	03/04/02 Dup	Primary
Compound (ug/l)	Filliary	Filliary	rinnary	Filliary	Dup	rimary
1,1,1-Trichloroethane	0.05 U	12 U	0.1 U	28	38	20 J
1,1,2,2-Tetrachloroethane	0.03 U 0.17 U	42 U	0.1 U 0.34 U	0.33 U	6.6 U	12 U
1,1,2-Trichloro-1,2,2-trifluoroethane		42 U	0.54 0	200	310	270
1,1,2-Trichloroethane	0.08 U	20 U	0.16 U	1.7	6.2 U	8.4 U
1,1-Dichloroethane	0.06 U 0.04 U	10 U	0.18 U 0.08 U	1.7	21	18 J
1,1-Dichloroethene	0.04 U	32 J	1.3	310	300	310
1,2-Dichlorobenzene	0.00 U 0.11 U	28 U	0.22 U	0.11 U	2.2 U	4.8 U
1,2-Dichloroethane	0.11 U 0.08 U	20 U	0.22 U 0.16 U	0.11 U 0.22 U	4.4 U	7.2 U
1,2-Dichloropropane	0.03 U	18 U	0.10 U 0.14 U	0.22 U 0.14 U	2.8 U	7.2 U 5.2 U
1,3-Dichlorobenzene	0.07 U	32 U	0.14 U 0.26 U	0.14 U	2.0 U	4.8 U
1,4-Dichlorobenzene	0.13 U 0.11 U	32 U 28 U	0.26 U 0.22 U			
1,4-Dioxane	0.11 U 0.32 U	28 U 0.32 U,J	0.22 U 0.32 U	0.11 U	2.2 U	4.8 U
2-Butanone	0.32 U 0.7 U	0.32 U,3 180 U	0.32 U 1.4 U	3.2 U	64 U	150 U
2-Chloroethyl Vinyl Ether	0.7 0	100 0	1.4 0		04 0	150 0
2-Chloroedityi viriyi Etilei 2-Hexanone	0.96 U	240 U	1.9 U	3.5 U	70 U	140 U
4-Methyl-2-pentanone	1.1 U	240 U	1.9 U 2.2 U	3.5 U 3.4 U	68 U	68 U
Acetone	1.1 U 1.8 U	450 U	3.6 U	5.4 U	100 U	150 U
Benzene	0.05 U	430 U	0.1 U	0.28 J	2.2 U	4 U
Bromodichloromethane	0.05 U	12 U	0.1 U	0.20 J 0.2 U	2.2 U 4 U	4.8 U
Bromoform	0.03 U 0.11 U	28 U	0.1 U 0.22 U	0.2 U	6.8 U	4.6 U
Bromomethane	0.11 U 0.19 U	48 U	0.22 U 0.38 U	0.34 U	6.6 U	6.4 U
Carbon disulfide	1.4 U	46 U 340 U	0.36 U 2.7 U	0.3 U	7.6 U	21 U
Carbon tetrachloride	0.06 U	15 U	0.12 U	0.36 U 0.15 U		4.8 U
Chlorobenzene	0.00 U 0.07 U	18 U	0.12 U 0.14 U		3 U 1.7 U	4.6 U 4.4 U
Chloroethane	0.07 U 0.11 U	28 U	0.14 U 0.22 U	0.085 U 0.33 U	6.6 U	4.4 U 5.2 U
Chloroform		18 U		1.8	3.8 U	3.8 U
Chloromethane	0.07 U 0.14 U	35 U	0.26 J 0.28 U	1.6 0.27 U	5.6 U 5.4 U	5.6 U
cis-1,2-Dichloroethene	16	420	11	1200	1100	1600
cis-1,3-Dichloropropene	0.08 U	420 20 U	0.16 U	0.11 U	2.2 U	4.8 U
Dibromochloromethane	0.06 U	15 U	0.10 U	0.11 U 0.18 U	2.2 U 3.6 U	4.0 U 5.2 U
Ethylbenzene	0.00 U	25 U	0.12 U	0.18 U	3.6 U	3.2 U
m,p-Xylenes	0.1 U 0.21 U	52 U	0.2 U	0.18 U 0.69 U	3.6 U 14 U	7.6 U
Methylene chloride						9.6 U
o-Xylene	0.06 U 0.07 U	16 U 18 U	0.62 U 0.14 U	0.38 J,B,L 0.14 U	4.4 U 2.8 U	9.6 U 4 U
Tetrachloroethene	0.07 U 0.08 U	20 U	0.14 U 0.16 U	2.2	3.2 U	5.2 U
Toluene	0.08 U 0.07 U	18 U	0.16 U 0.14 U	2.2 0.093 U	3.2 U 1.9 U	5.2 U 5.2 U
trans-1,2-Dichloroethene	1.3	22 U	0.14 U 0.59 J	68	79	100
trans-1,3-Dichloropropene	1.3 0.07 U	18 U	0.59 J 0.14 U	0.19 U	79 3.8 U	6.8 U
Trichloroethene	1.4	8000	63	4100	3900	4100
Trichlorofluoromethane		31 J	0.14 U	0.17 U	3.4 U	8.4 U
Vinyl chloride	0.07 U 3.9	31 J 15 U	0.14 U 0.12 U	12	3.4 U 14	9.6 J
Method	8260B	8260B	8260B	8260B	8260B	8260B
				DMA	DMA	DMA
Lab	DMA	DMA	DMA	DIMM	DIVIA	DIVIN

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TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	HAR-21	HAR-21	HAR-22	HAR-22	HAR-23	HAR-23
FLUTe Sample Port	-					
Sample Date	03/07/02	11/06/02	03/05/02	11/07/02	03/08/02	08/29/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	0.25 U	0.13 U	0.088 U	0.13 U	0.088 U
1,1,2,2-Tetrachloroethane	0.33 U	0.85 U	0.33 U	0.29 U	0.33 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U		0.32 U	1.2 U	0.32 U	1.2 U
1,1,2-Trichloroethane	0.31 U	0.4 U	0.31 U 、	0.21 U	0.31 U	0.21 U
1,1-Dichloroethane	0.13 U	0.2 U	0.13 U	0.12 U	0.13 U	0.12 U
1,1-Dichloroethene	0.16 J	0.3 U	0.14 U	0.11 U	0.14 U	0.11 U
1,2-Dichlorobenzene	0.11 U	0.55 U	0.11 U	0.12 U	0.11 U	0.12 U
1,2-Dichloroethane	0.22 U	0.4 U	0.22 U	0.18 U	0.22 U	0.18 U
1,2-Dichloropropane	0.14 U	0.35 U	0.14 U	0.13 U	0.14 U	0.13 U
1,3-Dichlorobenzene	0.1 U	0.65 U	0.1 U	0.12 U	0.1 U	0.12 U
1,4-Dichlorobenzene	0.11 U	0.55 U	0.11 U	0.12 U	0.11 U	0.12 U
1,4-Dioxane		3.23				
2-Butanone	3.2 U	3.5 U	3.2 U	3.8 U	3.2 U	3.8 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.5 U	4.8 U	3.5 U	3.6 U	3.5 U	3.6 U
4-Methyl-2-pentanone	3.4 U	5.4 U	3.4 U	1.7 U	3.4 U	1.7 U
Acetone	5 U	9 U	5 U	3.7 U	5 U	3.7 U
Benzene	0.11 U	0.25 U	0.11 U	0.1 U	0.11 U	0.1 U
Bromodichloromethane	0.2 U	0.25 U	0.2 U	0.12 U	0.2 U	0.12 U
Bromoform	0.34 U	0.55 U	0.34 U	0.25 U	0.34 U	0.25 U
Bromomethane	0.3 U	0.95 U	0.3 U	0.16 U	0.3 U	0.16 U
Carbon disulfide	0.38 U	6.8 U	0.38 U	0.52 U	0.38 U	0.52 U
Carbon tetrachloride	0.15 U	0.3 U	0.15 U	0.12 U	0.15 U	0.12 U
Chlorobenzene	0.085 U	0.35 U	0.085 U	0.11 U	0.085 U	0.11 U
Chloroethane	0.33 U	0.55 U	0.33 U	0.13 U	0.33 U	0.13 U
Chloroform	0.19 U	0.35 U	0.19 U	0.095 U	0.19 U	0.095 U
Chloromethane	0.27 U	0.7 U	0.27 U	0.14 U	0.27 U	0.14 U
cis-1,2-Dichloroethene	130	190	6.6	9.7	0.17 J	0.13 U
cis-1,3-Dichloropropene	0.11 U	0.4 U	0.11 U	0.12 U	0.11 U	0.12 U
Dibromochloromethane	0.18 U	0.3 U	0.18 U	0.13 U	0.18 U	0.13 U
Ethylbenzene	0.18 U	0.5 U	0.18 U	0.099 U	0.18 U	0.099 U
m,p-Xylenes	0.69 ป	1 U	0.69 U	0.19 U	0.69 U	0.19 U
Methylene chloride	0.22 U	0.3 U	0.22 U	0.24 U	0.22 U	0.24 U
o-Xylene	0.14 U	0.35 U	0.14 U	0.1 U	0.14 U	0.1 U
Tetrachloroethene	0.16 U	0.4 U	0.16 U	0.13 U	0.16 U	0.13 U
Toluene	0.14 J,V	0.35 U	0.093 U	0.13 U	0.093 U	0.26 J
trans-1,2-Dichloroethene	15	19	0.24 J	0.49 J	0.11 U	0.13 U
trans-1,3-Dichloropropene	0.19 U	0.35 U	0.19 U	0.17 U	0.19 U	0.17 U
Trichloroethene	4.5	3.3 J	1.6	2.3	1.6	1.1
Trichlorofluoromethane	0.17 U	0.35 U	0.17 U	0.21 U	0.17 U	0.21 U
Vinyl chloride	32	56	0.36 J	0.13 U	0.21 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	HAR-23	HAR-24	HAR-24	HAR-24	HAR-25	HAR-26
FLUTe Sample Port		Z6	Z 7	Z8		
Sample Date	08/29/02	03/06/02	03/06/02	03/06/02	03/11/02	03/08/02
Sample Type	Split	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)				·	······································	
1,1,1-Trichloroethane	0.3 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2,2-Tetrachloroethane	0.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2U	0.32 U	0.32 U	0.32 U	1.4 J	0.32 U
1,1,2-Trichloroethane	0.2 U	0.31 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-Dichloroethane	0.2 U	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U
1,1-Dichloroethene	0.2 U	0.14 U	0.14 U	0.14 U	0.86 J	0.14 U
1,2-Dichlorobenzene	0.2 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,2-Dichloroethane	0.3 U	0.22 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloropropane	0.5 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-Dichlorobenzene	0.1 U	0.1 U	0.1 U	0.1 U	0.13 J	0.1 U
1,4-Dichlorobenzene	0.1 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
1,4-Dioxane						
2-Butanone	2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
2-Chloroethyl Vinyl Ether	0.3 U					
2-Hexanone	0.5 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
4-Methyl-2-pentanone	0.3 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
Acetone	0.9 U	9.8 J,L	5 U	5 U	5 U	5 U
Benzene	0.2 U	0.55 F	0.91 F	1.2 F	0.11 U	0.11 U
Bromodichloromethane	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	0.3 U	0.34 U	0.34 U	0.34 U	0.34 U	0.34 U
Bromomethane	0.4 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon disulfide	0.2 U	0.38 U	0.38 U	0.38 U	0.38 U	0.38 U
Carbon tetrachloride	0.5 U	0.15 U	0.15 U	0.15 U	0.51	0.15 U
Chlorobenzene	0.2 U	0.085 U	0.085 U	0.085 U	0.085 U	0.085 U
Chloroethane	0.3 U	0.33 U	0.33 U	0.33 U	0.33 U	0.33 U
Chloroform	0.2 U	0.19 U	0.19 U	0.19 U	1.4	0.19 U
Chloromethane	0.4 U	0.27 U	0.27 U	0.27 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	0.3 U	34	19	15	0.31 J	0.14 U
cis-1,3-Dichloropropene	0.2 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Dibromochloromethane	0.3 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.2 U	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
m,p-Xylenes	0.3 U	0.69 U	0.69 U	0.69 U	0.69 U	0.69 U
Methylene chloride	2 U	0.22 U	0.22 U	0.22 U	0.22 U	0.4 J,L
o-Xylene	0.1 U	0.14 U	0.14 U	0.14 U	0.14 U	0.14 U
Tetrachloroethene	0.2 U	0.16 U	0.16 U	0.16 U	7.1	0.16 U
Toluene	0.3 U	0.11 J,V	0.11 J,V	0.093 U	0.093 U	0.093 U
rans-1,2-Dichloroethene	0.3 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
rans-1,3-Dichloropropene	0.3 U	0.19 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	0.3 U	0.57 J	3.9	2.2	97	0.14 U
Trichlorofluoromethane	0.2 U	0.17 U	0.17 U	0.17 U	82	0.17 U
Vinyl chloride	0.3 U	0.21 U	0.21 U	0.21 U	0.21 U	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	AmA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	LIAD OC	LIAD OF	MC 044	WS-04A	10/0 04 0	MC 044
FLUTe Sample Port	HAR-26	HAR-26	WS-04A		WS-04A	WS-04A
Sample Date	08/28/02	11/20/02	03/08/02	05/09/02	05/09/02	05/09/02
Sample Type						
Compound (ug/l)	Primary	Primary	Primary	Primary	Dup	Split
1,1,1-Trichloroethane	0.000.11	0.05.11	0.4011	0.088 U	0.088 U	0.211
	0.088 U	0.05 U	0.13 U			0.3 U
1,1,2,2-Tetrachloroethane	0.29 U	0.17 U	0.33 U	0.29 U	0.29 U	0.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	0.0011	0.32 U	1.2 U	1.2 U	0.2 U
1,1,2-Trichloroethane	0.21 U	0.08 U	0.31 U	0.21 U	0.21 U	0.2 U
1,1-Dichloroethane	0.12 U	0.04 U	0.13 U	0.12 U	0.12 U	0.2 U
1,1-Dichloroethene	0.11 U	0.06 U	0.14 U	0.11 U	0.11 U	0.2 U
1,2-Dichlorobenzene	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.2 U
1,2-Dichloroethane	0.18 U	U 80.0	0.22 U	0.18 U	0.18 U	0.3 U
1,2-Dichloropropane	0.13 U	0.07 U	0.14 U	0.13 U	0.13 U	0.5 U
1,3-Dichlorobenzene	0.12 U	0.13 U	0.1 U	0.12 U	0.12 U	0.1 U
1,4-Dichlorobenzene	0.12 U	0.11 U	0.11 U	0.12 U	0.12 U	0.1 U
1,4-Dioxane		0.32 U				
2-Butanone	3.8 U	0.7 U	3.2 U	3.8 U	3.8 U	2 U
2-Chloroethyl Vinyl Ether						0.3 U
2-Hexanone	3.6 U	0.96 U	3.5 U	3.6 U	3.6 U	0.5 U
4-Methyl-2-pentanone	1.7 U	1.1 U	3.4 U	1.7 U	1.7 U	0.3 U
Acetone	3.7 U	2.1 U	5 U	3.7 U	3.7 U	0.9 U
Benzene	0.1 U	0.05 U	0.11 U	0.1 U	0.1 U	0.2 U
Bromodichloromethane	0.12 U	0.05 U	0.2 U	0.12 U	0.12 U	0.2 U
Bromoform	0.25 U	0.11 U	0.34 U	0.25 U	0.25 U	0.3 U
Bromomethane	0.16 U	0.19 U	0.3 U	0.16 U	0.16 U	0.4 U
Carbon disulfide	0.52 U	1.4 U	0.38 U	0.52 U	0.52 U	0.2 U
Carbon tetrachloride	0.12 U	0.06 U	0.15 U	0.12 U	0.12 U	0.5 U
Chlorobenzene	0.11 U	0.07 U	0.085 U	0.11 U	0.11 U	0.2 U
Chloroethane	0.13 U	0.11 U	0.33 U	0.13 U	0.13 U	0.3 U
Chloroform	0.095 U	0.07 U	0.19 U	0.095 U	0.095 U	0.2 U
Chloromethane	0.14 U	0.27 J	0.27 U	0.14 U	0.14 U	0.4 U
cis-1,2-Dichloroethene	0.13 U	0.09 U	0.14 U	0.13 U	0.13 U	0.3 U
cis-1,3-Dichloropropene	0.12 U	0.08 U	0.11 U	0.12 U	0.12 U	0.2 U
Dibromochloromethane	0.13 U	0.06 U	0.18 U	0.13 U	0.13 U	0.3 U
Ethylbenzene	0.099 U	0.1 U	0.18 U	0.099 U	0.099 U	0.2 U
m,p-Xylenes	0.19 U	0.21 U	0.69 U	0.19 U	0.19 U	0.3 U
Methylene chloride	0.24 U	0.06 U	0.22 U	0.79 J,B,L	0.36 J,B,L	2 U
o-Xylene	0.1 U	0.07 U	0.14 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	U 80.0	0.16 U	0.13 U	0.13 U	0.2 U
Toluene	0.13 U	0.07 U	0.093 U	0.13 U	0.13 J,V	0.3 U
trans-1,2-Dichloroethene	0.13 U	0.09 U	0.11 U	0.13 U	0.13 U	0.3 U
trans-1,3-Dichloropropene	0.17 U	0.07 U	0.19 U	0.17 U	0.17 U	0.3 U
Trichloroethene	0.13 U	0.06 U	0.14 U	0.13 U	0.13 U	0.3 U
Trichlorofluoromethane	0.21 U	0.07 U	0.17 U	0.21 U	0.21 U	0.2 U
Vinyl chloride	0.13 U	0.06 U	0.21 U	0.13 U	0.13 U	0.3 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	AmA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	WS-04A	WS-04A	WS-04A	WS-05	WS-05	WS-05
FLUTe Sample Port	-					
Sample Date	08/28/02	08/28/02	11/12/02	03/07/02	05/07/02	08/13/02
Sample Type	Primary	Dup	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.13 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	0.33 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	0.32 U	1.2 U	1.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	0.31 U	0.21 U	0.21 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.13 U	0.12 U	0.12 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.14 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	0.22 U	0.18 U	0.18 U
1,2-Dichloropropane	0.13 U	0.13 U	0.13 U	0.14 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.1 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
1,4-Dioxane		***	•••	3 U	0.32 U	0.32 U
2-Butanone	3.8 U	3.8 U	3.8 U	3.2 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether	***		-			
2-Hexanone	3.6 U	3.6 U	3.6 U	3.5 U	3.6 U	3.6 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	3.4 U	1.7 U	1.7 U
Acetone	3.7 U	3.7 U	3.7 U	5 U	3.7 U	3.7 U
Benzene	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.2 U	0.12 U	0.12 U
Bromoform	0.25 U	0.25 U	0.25 U	0.34 U	0.25 U	0.25 U
Bromomethane	0.16 U	0.16 U	0.16 U	0.3 U	0.16 U	0.16 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	0.38 U	0.52 U	0.52 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.15 U	0.12 U	0.12 U
Chlorobenzene	0.11 U	0.11 U	0.11 U	0.085 U	0.11 U	0.11 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.33 U	0.13 U	0.13 U
Chloroform	0.095 U	0.095 U	0.095 U	0.19 U	0.095 U	0.095 U
Chloromethane	0.14 U	0.14 U	0.14 U	0.27 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	2.8	2.8	2.6
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.11 U	0.12 U	0.12 U
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.18 U	0.13 U	0.13 U
Ethylbenzene	0.099 U	0.099 U	0.099 U	0.18 U	0.099 U	0.099 U
m,p-Xylenes	0.19 U	0.19 U	0.19 U	0.69 U	0.19 U	0.19 U
Methylene chloride	0.24 U	0.24 U	0.24 U	0.22 U	0.24 U	0.24 U
o-Xylene	0.1 U	0.1 U	0.1 U	0.14 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.16 U	0.13 U	0.13 U
Toluene	0.13 U	0.13 U	0.13 U	0.093 U	0.13 U	0.13 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.18 J	0.21 J	0.23 J
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.19 U	0.17 U	0.17 U
Trichloroethene	0.13 U	0.13 U	0.13 U	1.5	1.5	1.5
Trichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.17 U	0.21 U	0.21 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.21 U	0.25 J	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

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TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	WS-05	WS-05	WS-06	WS-06	WS-06	WS-06
FLUTe Sample Port						
Sample Date	11/05/02	11/05/02	03/07/02	05/08/02	08/14/02	11/13/02
Sample Type	Primary	Split	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.088 U	***	0.13 U	0.088 U	0.088 U	0.088 U
1,1,2,2-Tetrachloroethane	0.29 U	***	0.33 U	0.29 U	0.29 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U		0.32 U	1.2 U	1.2 U	1.2 U
1,1,2-Trichloroethane	0.21 U		0.31 U	0.21 U	0.21 U	0.21 U
1,1-Dichloroethane	0.12 U		0.13 U	0.12 U	0.12 U	0.12 U
1,1-Dichloroethene	0.11 U		0.14 U	0.11 U	0.11 U	0.11 U
1,2-Dichlorobenzene	0.12 U		0.11 U	0.12 U	0.12 U	0.12 U
1,2-Dichloroethane	0.18 U	•••	0.22 U	0.18 U	0.18 U	0.18 U
1,2-Dichloropropane	0.13 ป		0.14 U	0.13 U	0.13 U	0.13 U
1,3-Dichlorobenzene	0.12 U		0.1 U	0.12 U	0.12 U	0.12 U
1,4-Dichlorobenzene	0.12 U		0.11 U	0.12 U	0.12 U	0.12 U
1,4-Dioxane	5.86 J	2	3 U	0.32 U	0.32 U	3.86 B
2-Butanone	3.8 U	gp-48-50	3.2 U	3.8 U	3.8 U	3.8 U
2-Chloroethyl Vinyl Ether			Missa			
2-Hexanone	3.6 U	***	3.5 U	3.6 U	3.6 U	3.6 U
4-Methyl-2-pentanone	1.7 U		3.4 U	1.7 U	1.7 U	1.7 U
Acetone	6.6 J		5 U	3.7 U	3.7 U	3.7 U
Benzene	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U
Bromodichloromethane	0.12 U		0.2 U	0.12 U	0.12 U	0.12 U
Bromoform	0.25 U		0.34 U	0.25 U	0.25 U	0.25 U
Bromomethane	0.16 U		0.3 U	0.16 U	0.16 U	0.16 U
Carbon disulfide	0.52 U		0.38 U	0.52 U	0.52 U	0.52 U
Carbon tetrachloride	0.12 U		0.15 U	0.12 U	0.12 U	0.12 U
Chlorobenzene	0.11 U	***	0.085 U	0.11 U	0.11 U	0.11 U
Chloroethane	0.13 U		0.33 U	0.13 U	0.13 U	0.13 U
Chloroform	0.095 U		0.19 U	0.095 U	0.095 U	0.095 ป
Chloromethane	0.38 J		0.27 U	0.14 U	0.14 U	0.14 U
cis-1,2-Dichloroethene	2.8	***	33	37	35	37
cis-1,3-Dichloropropene	0.12 U		0.11 U	0.12 U	0.12 U	0.12 U
Dibromochloromethane	0.13 U		0.18 U	0.13 U	0.13 U	0.13 U
Ethylbenzene	0.099 U		0.18 U	0.099 U	0.099 U	0.099 U
m,p-Xylenes	0.19 U		0.69 U	0.19 U	0.19 U	0.19 U
Methylene chloride	0.24 U		0.22 U	0.95 J,L	0.24 U	0.24 U
o-Xylene	0.1 U		0.14 U	0.1 U	0.1 U	0.1 U
Tetrachloroethene	0.13 U	***	0.16 U	0.13 U	0.13 U	0.13 U
Toluene	0.13 U	***	0.093 U	0.13 U	0.16 J,B	0.13 U
trans-1,2-Dichloroethene	0.18 J		4.8	6	5.7	6.9
trans-1,3-Dichloropropene	0.17 U		0.19 U	0.17 U	0.17 U	0.17 U
Trichloroethene	1.4		5.2	6.2	5.5	3.3
Trichlorofluoromethane	0.21 U		0.17 U	0.21 U	0.21 U	0.21 U
Vinyl chloride	0.13 U		1.7	1.8	1.5	2
Method	8260B	8260SIM	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	WS-09	WS-09	WS-09	WS-09	WS-09	WS-09
FLUTe Sample Port		***				
Sample Date	02/19/02	02/19/02	05/16/02	07/23/02	11/06/02	11/06/02
Sample Type	Primary	Dup	Primary	Primary	Primary	Dup
Compound (ug/l)				· · · · · · · · · · · · · · · · · · ·		
1,1,1-Trichloroethane	0.13 U	0.13 U	0.088 U	20 J	0.088 U	4.4 U
1,1,2,2-Tetrachloroethane	0.33 U	0.33 U	0.29 U	14 U	0.29 U	14 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U	0.32 U	1.2 U	120 J	1.2 U	60 U
1,1,2-Trichloroethane	0.31 U	0.31 U	0.21 U	10 U	0.21 U	10 U
1,1-Dichloroethane	0.13 U	0.13 U	0.12 U	6 U	0.12 U	6 U
1,1-Dichloroethene	0.14 U	0.14 U	0.11 U	72	1.6	5.5 U
1,2-Dichlorobenzene	0.11 U	0.11 U	0.12 U	6 U	0.12 U	6 U
1,2-Dichloroethane	0.22 U	0.22 U	0.18 U	9 U	0.18 U	9 U
1,2-Dichloropropane	0.14 U	0.14 U	0.13 U	6.5 U	0.13 U	6.5 U
1,3-Dichlorobenzene	0.1 U	0.1 U	0.12 U	6 U	0.12 U	6 U
1,4-Dichlorobenzene	0.11 U	0.11 U	0.12 U	6 U	0.12 U	6 U
1,4-Dioxane				0.32 U	0.32 U	
2-Butanone	3.2 U	3.2 U	3.8 U	190 U	3.8 U	190 U
2-Chloroethyl Vinyl Ether			•••			
2-Hexanone	3.5 U	3.5 U	3.6 U	180 U	3.6 U	180 U
4-Methyl-2-pentanone	3.4 U	3.4 U	1.7 U	85 U	1.7 U	85 U
Acetone	5 U	5 U	3.7 U	190 J	3.7 U	180 U
Benzene	0.11 U	0.11 U	0.1 U	5 U	0.1 U	5 U
Bromodichloromethane	0.2 U	0.2 U	0.12 U	6 U	0.12 U	6 U
Bromoform	0.34 U	0.34 U	0.25 U	12 U	0.25 U	12 U
Bromomethane	0.3 U	0.3 U	0.16 U	8 U	0.16 U	8 U
Carbon disulfide	0.38 U	0.38 U	0.52 U	26 U	0.52 U	26 U
Carbon tetrachloride	0.15 U	0.15 U	0.12 U	34	0.12 U	6 U
Chlorobenzene	0.085 U	0.085 U	0.11 U	5.5 U	0.11 U	5.5 U
Chloroethane	0.33 U	0.33 U	0.13 U	6.5 U	0.13 U	6.5 U
Chloroform	0.19 U	0.19 U	0.095 U	270	0.095 U	4.8 U
Chloromethane	0.27 U	0.27 U	0.14 U	7 U	0.14 U	7 U
cis-1,2-Dichloroethene	6.1	6.4	14	540	390	380
cis-1,3-Dichloropropene	0.11 U	0.11 U	0.12 U	6 U	0.12 U	6 U
Dibromochloromethane	0.18 U	0.18 U	0.13 U	6.5 U	0.13 U	6.5 U
Ethylbenzene	0.18 U	0.18 U	0.099 U	5 U	0.099 U	5 U
m,p-Xylenes	0.69 U	0.69 U	0.19 U	9.5 U	0.19 U	9.5 U
Methylene chloride ·	0.22 U	0.23 J,B,L	0.24 U	20 J	0.24 U	12 U
o-Xylene	0.14 U	0.14 U	0.1 U	5 U	0.1 U	5 U
Tetrachloroethene	0.16 U	0.16 U	0.13 U	6.5 U	0.13 U	6.5 U
Toluene	0.093 U	0.093 U	0.13 U	20 J	1	6.5 U
trans-1,2-Dichloroethene	0.11 U	0.43 J	0.43 J	7.5 J	6.4	6.5 U
trans-1,3-Dichloropropene	0.19 U	0.19 U	0.17 U	8.5 U	0.17 U	8.5 U
Trichloroethene	55	61	70	7500	4600	4700
Trichlorofluoromethane	0.17 U	0.17 U	0.21 U	10 U	0.21 U	10 U
Vinyl chloride	0.21 U	0.21 U	0.13 U	6.5 U	0.42 J	6.5 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

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TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	WS-09	WS-09	WS-09	WS-09A	WS-09A	WS-09A
FLUTe Sample Port						
Sample Date	11/06/02	11/06/02	11/21/02	02/19/02	08/09/02	08/09/02
Sample Type	Split	Split	Primary	Primary	Primary	Split
Compound (ug/l)						· · · · · · · · · · · · · · · · · · ·
1,1,1-Trichloroethane	0.2 U	•••	12 U	0.13 U	0.088 U	0.3 U
1,1,2,2-Tetrachloroethane	0.4 U	-	42 U	0.33 U	0.29 U	0.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2 U			0.32 U	1.2 U	0.2 U
1,1,2-Trichloroethane	0.2 U	***	20 U	0.31 U	0.21 U	0.2 U
1,1-Dichloroethane	0.2 U	***	10 U	0.13 U	0.12 U	0.2 U
1,1-Dichloroethene	1.7	***	15 U	0.14 U	0.46 J	0.2 U
1,2-Dichlorobenzene	0.2 U		28 U	0.11 U	0.12 U	0.2 U
1,2-Dichloroethane	0.2 U	***	20 U	0.22 U	0.18 U	0.3 U
1,2-Dichloropropane	0.4 U	•	18 U	0.14 U	0.13 U	0.5 U
1,3-Dichlorobenzene	0.2 U		32 U	0.1 U	0.12 U	0.1 U
1,4-Dichlorobenzene	0.2 U	•••	28 U	0.11 U	0.12 U	0.1 U
1,4-Dioxane		2.1	0.32 U			
2-Butanone	7 U	***	180 U	3.2 U	3.8 U	2 U
2-Chloroethyl Vinyl Ether	0.3 U			*		0.3 U
2-Hexanone	0.7 U		240 U	3.5 U	3.6 U	0.5 U
4-Methyl-2-pentanone	0.2 U		270 U	3.4 U	1.7 U	0.3 U
Acetone	3 U		450 U	5 U	3.7 U	0.9 U
Benzene	0.1 U	***	12 U	0.11 U	0.1 U	0.2 U
Bromodichloromethane	0.1 U		12 U	0.2 U	0.12 U	0.2 U
Bromoform	0.4 U	***	28 U	0.34 U	0.25 U	0.3 U
Bromomethane	0.5 U		48 U	0.3 U	0.16 U	0.4 U
Carbon disulfide	0.2 U		340 U	0.38 U	0.52 U	0.2 U
Carbon tetrachloride	0.3 U	***	15 U	0.15 U	0.12 U	0.5 U
Chlorobenzene	0.1 U		18 U	0.085 U	0.11 U	0.2 U
Chloroethane	0.3 U		28 U	0.33 U	0.13 U	0.3 U
Chloroform	0.2 U		18 U	0.19 U	0.095 U	0.2 U
Chloromethane	0.4 U		35 U	0.27 U	0.14 U	0.4 U
cis-1,2-Dichloroethene	350		260	13	150 D	140
cis-1,3-Dichloropropene	0.2 U	***	20 U	0.11 U	0.12 U	0.2 U
Dibromochloromethane	0.2 U		15 U	0.18 U	0.13 U	0.3 U
Ethylbenzene	0.2 U		25 U	0.18 U	0.099 U	0.2 U
m,p-Xylenes	0.3 U		52 U	0.69 U	0.19 U	0.3 U
Methylene chloride	3 U		180 U	0.26 J,B,L	0.24 U	2 U
o-Xylene	0.2 U		18 U	0.14 U	0.1 U	0.1 U
Tetrachloroethene	0.2 U		20 U	0.16 U	0.13 U	0.2 U
Toluene	1.3		18 U	0.093 U	0.13 U	0.3 U
trans-1,2-Dichloroethene	6		22 U	0.32 J	3.8	3.6
trans-1,3-Dichloropropene	0.2 U		18 U	0.19 U	0.17 U	0.3 U
Trichloroethene	4900		4700	11	320	310
Trichlorofluoromethane	0.1 U		18 U	0.17 U	0.21 U	0.2 U
Vinyl chloride	0.2 U		15 U	0.21 U	0.32 J	0.3 U
Method	8260B	8260SIM	8260B	8260B	8260B	8260B
Lab	AmA	DMA	DMA	DMA	DMA	AmA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	WS-09A	WS-09A	OS-02	OS-08	OS-16	OS-16
FLUTe Sample Port		•••				
Sample Date	11/11/02	11/20/02	03/01/02	02/28/02	03/12/02	03/12/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Dup
Compound (ug/l)					······································	
1,1,1-Trichloroethane	0.088 U	0.12 U	0.13 U	0.13 U	0.13 U	0.13 U
1,1,2,2-Tetrachloroethane	0.29 U	0.42 U	0.33 U	0.33 U	0.33 U	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U		0.32 U	0.32 U	0.32 U	0.32 U
1,1,2-Trichloroethane	0.21 U	0.2 U	0.31 U	0.31 U	0.31 U	0.31 U
1,1-Dichloroethane	0.12 U	0.1 U	0.13 U	0.13 U	0.13 U	0.13 U
1,1-Dichloroethene	0.11 U	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U
1,2-Dichlorobenzene	0.12 U	0.28 U	0.11 U	0.11 U	0.11 U	0.11 U
1,2-Dichloroethane	0.18 U	0.2 U	0.22 U	0.22 U	0.22 U	0.22 U
1,2-Dichloropropane	0.13 U	0.18 U	0.14 U	0.14 U	0.14 U	0.14 U
1,3-Dichlorobenzene	0.12 U	0.32 U	0.1 U	0.1 U	0.1 U	0.1 U
1,4-Dichlorobenzene	0.12 U	0.28 U	0.11 U	0.11 U	0.11 U	0.11 U
1,4-Dioxane		0.32 U				
2-Butanone	3.8 U	1.8 U	3.2 U	3.2 U	3.2 U	3.2 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.6 U	2.4 U	3.5 U	3.5 U	3.5 U	3.5 U
4-Methyl-2-pentanone	1.7 U	2.7 U	3.4 U	3.4 U	3.4 U	3.4 U
Acetone	3.7 U	4.5 U	5 U	5 U	5 U	5 U
Benzene	0.1 U	0.12 U	0.11 U	0.11 U	0.11 U	0.11 U
Bromodichloromethane	0.12 U	0.12 U	0.2 U	0.2 U	0.2 U	0.2 U
Bromoform	0.25 U	0.28 U	0.34 U	0.34 U	0.34 U	0.34 U
Bromomethane	0.16 U	0.48 U	0.3 U	0.3 U	0.3 U	0.3 U
Carbon disulfide	0.52 U	3.4 U	0.38 U	0.38 U	0.38 U	0.38 U
Carbon tetrachloride	0.12 U	0.15 U	0.15 U	0.15 U	0.15 U	0.15 U
Chlorobenzene	0.11 U	0.18 U	0.085 U	0.085 U	0.085 U	0.085 U
Chloroethane	0.13 U	0.28 U	0.33 U	0.33 U	0.33 U	0.33 U
Chloroform	0.095 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U
Chloromethane	0.14 U	0.35 U	0.27 U	0.27 U	0.27 U	0.27 U
cis-1,2-Dichloroethene	7.2	36	0.14 U	0.14 U	0.14 U	0.14 U
cis-1,3-Dichloropropene	0.12 U	0.2 U	0.11 U	0.11 U	0.11 U	0.11 U
Dibromochloromethane	0.13 U	0.15 U	0.18 U	0.18 U	0.18 U	0.18 U
Ethylbenzene	0.099 U	0.25 U	0.18 U	0.18 U	0.18 U	0.18 U
m,p-Xylenes	0.19 U	0.52 U	0.69 U	0.69 U	0.69 U	0.69 U
Methylene chloride	0.24 U	0.15 U	0.22 U	0.22 U	0.22 U	0.22 U
o-Xylene	0.1 U	0.18 U	0.14 U	0.14 U	0.14 U	0.14 U
Tetrachloroethene	0.13 U	0.2 U	0.16 U	0.16 U	0.16 U	0.16 U
Toluene	0.13 U	0.18 U	0.093 U	0.093 U	0.093 U	0.093 U
trans-1,2-Dichloroethene	0.19 J	0.97 J	0.11 U	0.11 U	0.11 U	0.11 U
trans-1,3-Dichloropropene	0.17 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U
Trichloroethene	12	65	0.14 U	0.14 U	0.14 U	0.14 U
Trichlorofluoromethane	0.21 U	0.18 U	0.17 U	0.17 U	0.17 U	0.17 U
Vinyl chloride	0.13 U	0.15 U	0.21 U	0.21 U	0.21 U	0.21 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	OS-16	OS-16	OS-16	OS-16	OS-17	OS-17
FLUTe Sample Port						
Sample Date	08/23/02	10/31/02	10/31/02	10/31/02	03/14/02	08/28/02
Sample Type	Primary	Primary	Dup	Split	Primary	Primary
Compound (ug/l)			<u> </u>			
1,1,1-Trichloroethane	0.088 U	0.088 U	0.088 U	0.2 U	0.13 U	0.088 U
1,1,2,2-Tetrachloroethane	0.29 U	0.29 U	0.29 U	0.4 U	0.33 U	0.29 U
1,1,2-Trichloro-1,2,2-trifluoroethane	1.2 U	1.2 U	1.2 U	0.2 U	0.32 U	1.2 U
1,1,2-Trichloroethane	0.21 U	0.21 U	0.21 U	0.2 U	0.31 U	0.21 U
1,1-Dichloroethane	0.12 U	0.12 U	0.12 U	0.2 U	0.13 U	0.12 U
1,1-Dichloroethene	0.11 U	0.11 U	0.11 U	0.3 U	0.14 U	0.11 U
1,2-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.2 U	0.11 U	0.12 U
1,2-Dichloroethane	0.18 U	0.18 U	0.18 U	0.2 U	0.22 U	0.18 U
1,2-Dichloropropane	0.13 U	0.13 U	0.13 U	0.4 U	0.14 U	0.13 U
1,3-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.2 U	0.1 U	0.12 U
1,4-Dichlorobenzene	0.12 U	0.12 U	0.12 U	0.2 U	0.11 U	0.12 U
1,4-Dioxane						***
2-Butanone	3.8 U	3.8 U	3.8 U	7 U	3.2 U	3.8 U
2-Chloroethyl Vinyl Ether			***	0.3 U		
2-Hexanone	3.6 U	3.6 U	3.6 U	0.7 U	3.5 U	3.6 U
4-Methyl-2-pentanone	1.7 U	1.7 U	1.7 U	0.2 U	3.4 U	1.7 U
Acetone	3.7 U	3.7 U	4.3 J,S	3 U	5 U	3.7 U
Benzene	0.1 U	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U
Bromodichloromethane	0.12 U	0.12 U	0.12 U	0.1 U	0.2 U	0.12 U
Bromoform	0.25 U	0.25 U	0.25 U	0.4 U	0.34 U	0.25 U
Bromomethane	0.16 U	0.16 U	0.16 U	0.5 U	0.3 U	0.16 U
Carbon disulfide	0.52 U	0.52 U	0.52 U	0.2 U	0.38 U	0.52 U
Carbon tetrachloride	0.12 U	0.12 U	0.12 U	0.3 U	0.15 U	0.12 U
Chlorobenzene	0.11 U	0.11 U	0.11 U	0.1 U	0.085 U	0.11 U
Chloroethane	0.13 U	0.13 U	0.13 U	0.3 U	0.33 U	0.13 U
Chloroform	0.095 U	0.095 U	0.095 U	0.2 U	0.19 U	0.095 U
Chloromethane	0.14 U	0.14 U	0.14 U	0.4 U	0.27 U	0.14 U
cis-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.2 U	0.14 U	0.13 U
cis-1,3-Dichloropropene	0.12 U	0.12 U	0.12 U	0.2 U	0.11 U	0.12 U
Dibromochloromethane	0.13 U	0.13 U	0.13 U	0.2 U	0.18 U	0.13 U
Ethylbenzene	0.099 U	0.099 U	0.099 U	0.2 U	0.18 U	0.099 ป
m,p-Xylenes	0.19 U	0.19 U	0.19 U	0.3 U	0.69 U	0.19 U
Methylene chloride	0.24 U	0.24 U	0.24 U	3 U	0.22 U	0.24 U
o-Xylene	0.1 U	0.1 U	0.1 U	0.2 U	0.14 U	0.1 U
Tetrachloroethene	0.13 U	0.13 U	0.13 U	0.2 U	0.16 U	0.13 U
Toluene	0.13 U	0.13 U	0.13 U	0.2 U	0.093 U	0.13 U
trans-1,2-Dichloroethene	0.13 U	0.13 U	0.13 U	0.2 U	0.11 U	0.13 U
trans-1,3-Dichloropropene	0.17 U	0.17 U	0.17 U	0.2 U	0.19 U	0.17 U
Trichloroethene	0.34 J	0.13 U	0.13 U	0.2 U	0.14 U	0.13 U
Trichlorofluoromethane	0.21 U	0.21 U	0.21 U	0.1 U	0.17 U	0.21 U
Vinyl chloride	0.13 U	0.13 U	0.13 U	0.2 U	0.21 U	0.13 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	AmA	DMA	DMA

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	OS-21	OS-24	OS-24	OS-26	OS-26	OS-27
FLUTe Sample Port		Z15	Z15			
Sample Date	03/06/02	03/06/02	08/20/02	03/08/02	08/30/02	03/08/02
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Compound (ug/l)						
1,1,1-Trichloroethane	0.13 U	0.19 J	0.17 J	0.13 U	0.088 U	0.13 U
1,1,2,2-Tetrachloroethane	0.33 U	0.33 U	0.29 U	0.33 U	0.29 U	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U	0.81 J	1.2 U	0.32 U	1.2 U	0.32 U
1,1,2-Trichioroethane	0.31 U	0.31 U	0.21 U	0.31 U	0.21 U	0.31 U
1,1-Dichloroethane	0.13 U	0.64 J	0.72 J	0.13 U	0.12 U	0.13 U
1,1-Dichloroethene	0.14 U	3.2	2.7	0.14 U	0.11 U	0.14 U
1,2-Dichlorobenzene	0.11 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U
1,2-Dichloroethane	0.22 U	0.22 U	0.18 U	0.22 U	0.18 U	0.22 U
1,2-Dichloropropane	0.14 U	0.14 U	0.13 U	0.14 U	0.13 U	0.14 U
1,3-Dichlorobenzene	0.1 U	0.1 U	0.12 U	0.1 U	0.12 U	0.1 U
1,4-Dichlorobenzene	0.11 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U
1,4-Dioxane						
2-Butanone	3.2 U	3.2 U	3.8 U	3.2 U	3.8 U	3.2 U
2-Chloroethyl Vinyl Ether						
2-Hexanone	3.5 U	3.5 U	3.6 U	3.5 U	3.6 U	3.5 U
4-Methyl-2-pentanone	3.4 U	3.4 U	1.7 U	3.4 U	1.7 U	3.4 U
Acetone	5 U	5 U	3.7 U	5 U	3.7 U	5 U
Benzene	0.11 U	0.3 J	0.5	0.11 U	0.1 J	0.11 U
Bromodichloromethane	0.2 U	0.2 U	0.12 U	0.2 U	0.12 U	0.2 U
Bromoform	0.34 U	0.34 U	0.25 U	0.34 U	0.25 U	0.34 U
Bromomethane	0.3 U	0.3 U	0.16 U	0.3 U	0.16 U	0.3 U
Carbon disulfide	0.38 U	0.38 U	0.52 U	0.38 U	0.52 U	0.38 U
Carbon tetrachloride	0.15 U	0.15 U	0.12 U	0.15 U	0.12 U	0.15 U
Chlorobenzene	0.085 U	0.085 U	0.18 J,F	0.085 U	0.11 U	0.085 U
Chloroethane	0.33 U	0.33 U	0.13 U	0.33 U	0.13 U	0.33 U
Chloroform	0.19 U	0.19 U	0.095 U	0.19 U	0.095 U	0.19 U
Chloromethane	0.27 U	0.27 U	0.14 U	0.27 U	0.14 U	0.27 U
cis-1,2-Dichloroethene	0.14 U	4.4	6	0.14 U	0.13 U	0.14 U
cis-1,3-Dichloropropene	0.11 U	0.11 U	0.12 U	0.11 U	0.12 U	0.11 U
Dibromochloromethane	0.18 U	0.18 U	0.13 U	0.18 U	0.13 U	0.18 U
Ethylbenzene	0.18 U	0.18 U	0.099 U	0.18 U	0.21 J	0.18 U
m,p-Xylenes	0.69 U	0.69 U	0.19 U	0.69 U	0.53 J	0.69 U
Methylene chloride	0.22 U	0.22 U	0.24 U	0.22 U	0.24 U	0.22 U
o-Xylene	0.14 U	0.14 U	0.1 U	0.14 U	0.1 U	0.14 U
Tetrachloroethene	0.16 U 0.093 U	2	1.3	0.16 U 0.093 U	0.13 U	0.16 U 0.093 U
Toluene trans-1,2-Dichloroethene		0.093 U	0.33 J,V 0.36 J	0.093 U 0.11 U	0.19 J 0.13 U	0.093 U 0.11 U
trans-1,2-Dichloroethene trans-1,3-Dichloropropene	0.11 U 0.19 U	0.11 U 0.19 U	0.36 J 0.17 U	0.11 U 0.19 U	0.13 U 0.17 U	0.11 U 0.19 U
Trichloroethene	0.19 U 0.14 U	97	83	0.19 U 0.14 U	0.17 U 0.13 U	0.19 U 0.14 U
Trichlorofluoromethane	0.14 U 0.17 U	97 0.17 U	os 0.21 U	0.14 U 0.17 U	0.13 U 0.21 U	0.14 U 0.17 U
Vinyl chloride	0.17 U 0.21 U	0.17 U 0.21 U	0.21 U 0.13 U	0.17 U 0.21 U	0.21 U	0.17 U
Method	8260B	8260B	8260B	8260B	8260B	8260B
Lab	DMA	DMA	DMA	DMA	DMA	DMA
	טואות	DITIA	DIVIA	DIVICA	DIVIT	· · · · · · · · · · · · · · · · ·

TABLE 4
SUMMARY OF RESULTS FOR VOLATILE ORGANIC COMPOUNDS
IN CHATSWORTH FORMATION WELLS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	OS-27
FLUTe Sample Port	
Sample Date	03/08/02
Sample Type	Dup
Compound (ug/l)	
1,1,1-Trichloroethane	0.13 U
1,1,2,2-Tetrachloroethane	0.33 U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.32 U
1,1,2-Trichloroethane	0.31 U
1,1-Dichloroethane	0.13 U
1,1-Dichloroethene	0.14 U
1,2-Dichlorobenzene	0.11 U
1,2-Dichloroethane	0.22 U
1,2-Dichloropropane	0.14 U
1,3-Dichlorobenzene	0.1 U
1,4-Dichlorobenzene	0.11 U
1,4-Dioxane	
2-Butanone	3.2 U
2-Chloroethyl Vinyl Ether	
2-Hexanone	3.5 U
4-Methyl-2-pentanone	3.4 U
Acetone	5 U
Benzene	0.11 U
Bromodichloromethane	0.2 U
Bromoform	0.34 U
Bromomethane	0.3 U
Carbon disulfide	0.38 U
Carbon tetrachloride	0.15 U
Chlorobenzene	0.085 U
Chloroethane	0.33 U
Chloroform	0.19 U
Chloromethane	0.27 U
cis-1,2-Dichloroethene	0.14 U
cis-1,3-Dichloropropene	0.11 U
Dibromochloromethane	0.18 U
Ethylbenzene	0.18 U
m,p-Xylenes	0.69 U
Methylene chloride	0.22 U
o-Xylene	0.14 U
Tetrachloroethene	0.16 U
Toluene	0.15 J,V
trans-1,2-Dichloroethene	0.11 U
trans-1,3-Dichloropropene	0.19 U
Trichloroethene	0.14 U
Trichlorofluoromethane	0.17 U
Vinyl chloride	0.21 U
Method	8260B
Lab	DMA

See last page of Table 4 for footnotes and explanations. Haley & Aldrich g:\projects\26472-roc\reports\m431annual\tables\M431.T04.xls

FOOTNOTES AND EXPLANATIONS

AmA = American Analytics of Chatsworth, California.

Ceimic = Ceimic Corporation of Narrangansett, Rhode Island.

DMA = Del Mar Analytical of Irvine, California.

(---) = Analysis not performed.

Comp = Composite sample. RD-10 composite samples were composited from FLUTe ports 3, 6, and 9. The HAR-01 sample was composited from FLUTe ports 6 through 10. The HAR-16 sample was composited from FLUTe ports 7 through 12.

Primary = Primary sample.

Dup = Sample duplicate.

Split = Sample split.

ug/l = Micrograms per liter.

B = Analyte was detected in the associated method blank.

C = Possible carry-over contaminant.

D = Result from diluted sample.

F = Sampled through multi-level FLUTe ports. Footnoted results are not representative of historic groundwater samples, and may have been introduced in the FLUTe samples by compressed nitrogen gas, electrical tape and/or FLUTe components.

HTV = Sample analyzed past holding time.

HS = VOA vial contained headspace which may have resulted in the loss of volatile analytes.

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

L = Laboratory contaminant.

S = Suspect result.

U = Not detected; numerical value represents the Method Detection Limit for that compound.

V = Possible VOA vial contaminant.

Z = FLUTe sample port number.

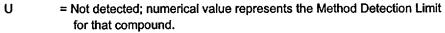
Notes:

* Low-level 1,4-dioxane analyses were performed by Ceimic Corporation using modified EPA method 8260 SIM by Ceimic Corporation on primary and duplicate samples and by Del Mar Analytical on split samples.

TABLE 5
SUMMARY OF RESULTS FOR GASOLINE RANGE ORGANICS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Date	EPA Method Number	Gasoline Range Organics Concentration (micrograms per liter)	Laboratory		
Shallow Wells	,					
HAR-11	02/15/02	8015	15 J,B	DMA		
Chatsworth Form	ation Wells					
RD-32	02/28/02	8015	18 J,B	DMA		
RD-32	08/27/02	8015	8.8 U	ĎMA		
RD-36B	02/25/02	8015	18 J,B	DMA		
RD-36B	08/18/02	8015	22 J,B	DMA		
RD-36C	02/26/02	8015	32 J,B	DMA		
RD-36C	08/20/02	8015	47 J	DMA		
RD-36D	02/26/02	8015	7 U	DMA		
RD-36D	08/20/02	8015	11 J,B	DMA		
RD-37	02/28/02	8015	9.9 J,B	DMA		
RD-37	08/21/02	8015	8.8 U	DMA		
RD-38B	02/28/02	8015	7 U	DMA		
RD-38B	08/20/02	8015	36 J,B,HTV	DMA		
RD-38B	08/20/02	8015	88 U,D	DMA		
RD-50	02/20/02	8015	13 J,B	DMA		
RD-53(Z5)	03/06/02	8015	9 J,B	DMA		
RD-73(Z6)	03/06/02	8015	1800	DMA		

FOOTNOTES AND EXPLANATIONS:



B = Analyte was detected in the associated method blank.

J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

DMA = Del Mar Analytical of Irvine, California. HTV = Sample extracted past the holding time.

D = Result from diluted sample.Z = FLUTe sample port number.

TABLE 6
SUMMARY OF ANALYSES FOR TRACE METAL CONSTITUENTS AND CYANIDE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID			RS-54	RS-54	RD-15	RD-21	RD-21	RD-22	RD-23	RD-23	RD-33A
Sample Date			03/01/02	11/07/02	03/06/02	03/06/02	08/14/02	02/20/02	03/01/02	08/14/02	02/15/02
Sample Type			Primary								
Compound	Units	MCL									
Antimony	ug/l	6	0.32 J	0.43 J,B	0.64 J	0.24 J	0.19 J,B	0.18 U	0.55 J	1 J,B	0.27 J
Arsenic	ug/l	50	2.6	0.29 U	0.58 J,B	0.8 J,B	0.29 U	0.15 U	0.7 J	0.29 U	1.9
Barium	ug/l	1000	82	83	49	51	47	51	40	36	48
Beryllium	ug/l	4	0.054 U	0.11 U	0.054 U	0.054 U	0.11 U	0.054 U	0.054 U	0.11 U	0.054 U
Cadmium	ug/l	5	2.9	1.6	0.067 U	0.067 U	0.063 J,B	0.067 U	0.067 U	0.088 J,B	0.067 U
Chromium	ug/l	50	0.53 J	1.2	0.2 ป	0.2 U	0.77 J	0.2 U	0.26 J	0.83 J	0.2 U
Cobalt	ug/l	NA	180	170	1.6	0.21 J	0.18 J	0.34 J	0.32 J	2	0.25 J
Copper	ug/l	1000 SMCL	21	15	2.5	3.5	1 J	1.6 J	1.6 J	6.3	1.1 J,B
Iron	ug/l	300 SMCL	68	42 B	19	4.1 U	7.5 J,B	4.1 U	7.4 J	6.4 J,B	4.1 U
Lead	ug/l	15 ECAL	0.54 J	6.8	0.95 J	9.1	4.8	4.8	6.7	6.6	4.7
Manganese	ug/l	50 SMCL	230	41	58	2.5	10	26	22	53	13
Mercury	mg/l	0.002	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Molybdenum	ug/l	NA	44	27	1.6	2.1	1.8	2	2.6	3.3	1.3
Nickel	ug/l	100	640	740	7.4	3.5	0.1 U	5.1	7	5.9	3.8
Selenium	ug/l	50	6.7	2.4	1.4 J	3.4	2.2	0.82 J	0.84 J	0.59 U	2.4
Silver	ug/i	100 SMCL	0.059 U	0.054 U	0.059 U	0.059 U	0.054 U	0.059 U	0.059 U	0.054 U	0.059 U
Thallium	ug/l	2	0.044 U	0.092 U	0.044 U	0.044 U	0.092 U	0.17 J	0.044 U	0.25 J	0.044 U
Total Cyanide	ug/l	200					***	3.7 U	***		3.7 U
Vanadium	ug/l	50 ACAL	1.6 B	0.39 U	0.45 J,B	0.91 J,B	0.83 J,B	0.33 J	0.81 J,B	0.39 U	0.82 J
Zinc	ug/l	5000 SMCL	210	2800	2200	1900	1100	2600	2000	2800	940
Laboratory			DMA								

TABLE 6
SUMMARY OF ANALYSES FOR TRACE METAL CONSTITUENTS AND CYANIDE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID			RD-33B	RD-33C	RD-34B	RD-34C	RD-54A	RD-54A	RD-54B	RD-54B	RD-54C
Sample Date			02/15/02	02/15/02	02/15/02	02/14/02	02/27/02	08/14/02	02/27/02	08/21/02	02/27/02
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Compound	Units	MCL					· · · · · · · · · · · · · · · · · · ·	<u> </u>			
Antimony	ug/l	6	0.18 U	0.18 U	0.18 U	0.29 J	0.26 J	0.88 J,B	0.18 U	0.22 J	0.18 U
Arsenic	ug/l	50	0.42 J	0.43 J	0.39 J	0.27 J	1.5	0.94 J	0.62 J	0.29 U	1
Barium	ug/l	1000	60	98	89	71	48	43	50	53	78
Beryllium	ug/l	4	0.054 U	0.11 U	0.054 U	0.11 U	0.054 U				
Cadmium	ug/l	5	0.067 U	0.067 U	2.2	0.067 U	0.092 J	0.064 J,B	0.067 U	0.03 U	0.067 U
Chromium	ug/l	50	0.2 U	0.46 J	0.2 U	0.23 J	0.2 U				
Cobalt	ug/l	NA	0.6 J	0.11 J	0.22 J	0.083 J	0.64 J	0.3 J	0.25 J	0.27 J	0.31 J
Copper	ug/l	1000 SMCL	0.69 J,B	0.93 J,B	1 J,B	0.34 J,B	1.6 J	1.5 J	0.84 J	1.6 J	0.94 J
Iron	ug/i	300 SMCL	1400	190	340	190	4.1 U	9.9 J,B	1000	3200	1400
Lead	ug/l	15 ECAL	0.55 J	1 J	0.84 J	0.25 J	12	23	29	5.2	30
Manganese	ug/l	50 SMCL	160	33	43	13	58	13	61	110	430
Mercury	mg/l	0.002	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Molybdenum	ug/l	NA	2.2	2	0.96 J	1.7	2.3	2.1	2	1.8	7.9
Nickel	ug/l	100	2.9	2.5	4.6	2	11	2	6.3	0.54 J,B	4.9
Selenium	ug/t	50	0.72 J	0.7 J	0.9 J	0.38 J	2.2	0.59 U	1.2 J	0.59 U	0.96 J
Silver	ug/i	100 SMCL	0.059 U	0.054 U	0.059 U	0.054 U	0.059 U				
Thallium	ug/l	2	0.044 U	0.044 J	0.044 U	0.062 J	0.14 J	0.092 U	0.14 J	0.13 J	0.44 J
Total Cyanide	ug/l	200	4.6 J	3.7 U	3.7 U	3.7 U				***	***
Vanadium	ug/l	50 ACAL	0.26 J	0.19 J	0.16 J	0.19 J	0.77 J,B	0.39 U	0.43 J,B	0.39 U	0.45 J,B
Zinc	ug/l	5000 SMCL	860	190	650	78	5000	1800	4100	3800	2700
Laboratory			DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 6
SUMMARY OF ANALYSES FOR TRACE METAL CONSTITUENTS AND CYANIDE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID		<u> </u>	RD-54C	RD-56B	RD-57	RD-59A	RD-59A	RD-59B	RD-59B	RD-59C	RD-59C
Sample Date			08/22/02	08/29/02	02/14/02	02/28/02	08/08/02	02/28/02	08/08/02	02/28/02	08/08/02
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Compound	Units	MCL	·····		· · · · · · · · · · · · · · · · · · ·						
Antimony	ug/l	6	0.064 U	0.17 J,B	0.26 J	0.18 U	0.39 J,B	0.18 U	0.13 J,B	0.18 U	0.066 J,B
Arsenic	ug/l	50	0.58 U	0.29 U	1.7	1.3	0.74 J	0.15 J	0.29 U	0.15 U	0.29 U
Barium	ug/l	1000	76	71	49	57	51	48	43	51	51
Beryllium	ug/l	4	0.22 U	0.11 U	0.054 U	0.054 U	0.11 U	0.054 U	0.11 U	0.054 U	0.11 U
Cadmium	ug/l	5	0.06 U	0.053 J	0.067 U	0.067 U	0.03 U	0.067 U	0.03 U	0.067 U	0.03 U
Chromium	ug/l	50	0.28 U	0.14 U	0.2 U	0.2 U	0.37 J,B	0.2 U	0.14 U	0.2 U	0.14 U
Cobalt	ug/l	NA	0.36 J	0.096 J	0.47 J	0.21 J	0.14 J	0.086 J	0.053 U	0.059 J	0.053 U
Copper	ug/l	1000 SMCL	2.8 J	4	3.2	1.8 J	13	1.6 J	0.94 J	1.7 J	1.1 J
Iron	ug/l	300 SMCL	2200	120	4.1 U	550	250	61	73 B	16	13 B
Lead	ug/l	15 ECAL	9.2	2.8	8.5	0.24 J	2.2	0.57 J	0.42 J	0.41 J	0.42 J
Manganese	ug/l	50 SMCL	550	34	30	44	45	2,2	24	15	17
Mercury	mg/l	0.002	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Molybdenum	ug/l	NA	6.3	1.8	2.1	1.7	1.2	1.6	1.5	1.4	1.3
Nickel	ug/l	100	0.78 J,B	0.1 U	3.5	3.8	0.1 U	2.1	0.1 U	1.4	0.1 U
Selenium	ug/l	50	1.2 U	0.59 U	0.63 J	0.62 J	0.59 U	0.27 J	0.59 U	0.32 J	0.59 U
Silver	ug/l	100 SMCL	0.11 U	0.054 U	0.059 U	0.059 U	0.054 U	0.059 U	0.054 U	0.059 U	0.054 U
Thallium	ug/i	2	0.56 J	0.15 J	0.26 J	0.06 J	0.17 J	0.044 U	0.092 U	0.044 U	0.092 U
Total Cyanide	ug/l	200	 								
Vanadium	ug/l	50 ACAL	0.78 U	0.39 U	1.8	0.86 J,B	0.6 J	0.38 J,B	0.39 U	0.3 J,B	0.39 U
Zinc	ug/l	5000 SMCL	1900	490	660	99	89	6.4 J	2.6 J,B	7.3 J	2.2 J,B
Laboratory			DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA

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DMA = Del Mar Analytical of Irvine, California.

(---) = Analysis not performed.

Primary = Primary sample.

mg/l = Milligrams per liter.

ug/l = Micrograms per liter.

MCL = Maximum Contaminant Level, California primary drinking water standard

(California Department of Health Services, MCLs, DLRs, and Unregulated

Chemicals Requiring Monitoring, 2002;

http://www.dhs.ca.gov/ps/ddwem/chemicals/mcl/mclindex.htm).

NA = Not available; no MCL promulgated.

B = Analyte was detected in the associated method blank.

J = Estimated value. Analyte detected at a level less than the Reporting Limit

(RL) and greater than or equal to the Method Detection Limit (MDL).

U = Not detected; numerical value represents the Method Detection Limit for that

compound.

SMCL = Secondary drinking water MCL.

ECAL = Enforceable California Action Level to be met at a customer tap.

ACAL = Advisory California Action Level for unregulated chemical contaminants.

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Shallow Wells					
Well Identifier	HAR-09	HAR-12	HAR-14	HAR-15	HAR-27
FLUTe Sample Port	***				
Sample Type	Primary	Primary	Primary	Primary	Primary
Sample Date	11/14/02	11/20/02	05/07/02	05/07/02	11/06/02
Compound (ug/l)					
1,2,4-Trichlorobenzene	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Diphenylhydrazine					
1,3-Dichlorobenzene	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
1,3-Dinitrobenzene	20 U	20 U	20 U	20 U	_20 U
1,4-Dichlorobenzene	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
2,4,6-Trichlorophenol	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	6 U	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dinitrotoluene	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Chloronaphthalene	3 U	3 U	3 U	3 U	3 U
2-Chlorophenol	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
2-Nitrophenol	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
3,3-Dichlorobenzidine	20 U	20 U	20 U	20 U	20 U
4,6-Dinitro-2-methylphenol	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
4-Bromophenyl phenyl ether	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
4-Chloro-3-methylphenol	4 U	4 U	4 U	4 U	4 U
4-Chlorophenyl phenyl ether	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
4-Methylphenol	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
4-Nitrophenol	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Acenaphthene	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Anthracene	0.8 U	0.8 U	0.8 U	0.8 U	0.8 U
Benzidine					
Benzo (b+k) fluoranthene (total)	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene					
Benzo(g,h,i)perylene	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene					
Bis(2-chloroethoxy)methane	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	3.0 U	3.0 U 4 U	3.0 U	3.0 U 4 U	3.0 U
Sis(2-ethylhexyl)phthalate	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	0.91 U 0.96 U	0.96 U	0.96 U	0.91 U 0.96 U	0.91 U
Di-n-butyl phthalate	0.90 U	0.90 U	0.92 U	0.90 U	0.90 U
Di-n-octyl phthalate	0.92 U 0.93 U	0.92 U	0.92 U	0.92 U	0.92 U
Dibenz(a,h)anthracene	0.93 U 0.89 U	0.89 U	0.89 U	0.93 U 0.89 U	0.93 U 0.89 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Shallow Wells					
Well Identifier	HAR-09	HAR-12	HAR-14	HAR-15	HAR-27
FLUTe Sample Port	***				
Sample Type	Primary	Primary	Primary	Primary	Primary
Sample Date	11/14/02	11/20/02	05/07/02	05/07/02	11/06/02
Compound (ug/l)					
Diethyl phthalate	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dimethyl phthalate	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Fluoranthene	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Fluorene	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Hexachlorobenzene	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Hexachlorobutadiene	3.1 U	3.1 U	3.1 U	3.1 U	·3.1 U
Hexachloroethane	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Isophorone	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
n-Nitroso-di-n-propylamine	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
n-Nitrosodimethylamine	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
n-Nitrosodiphenylamine	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Naphthalene	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Pentachlorophenol	0.165 HTV,U	0.165 U	0.165 U	0.165 U	0.165 U
Phenanthrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	4 U	4 U	4 U	4 Ü	4 U
Method	8270	8270	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Shallow Wells		
Well Identifier	HAR-28	HAR-33
FLUTe Sample Port		
Sample Type	Primary	Primary
Sample Date	11/20/02	11/21/02
Compound (ug/l)		
1,2,4-Trichlorobenzene	3.4 U	3.4 U
1,2-Dichlorobenzene	3.4 U	3.4 U
1,2-Diphenylhydrazine	-	
1,3-Dichlorobenzene	3.1 U	3.1 U
1,3-Dinitrobenzene	20 U	20 U
1,4-Dichlorobenzene	3.2 U	3.2 U
2,4,6-Trichlorophenol	4.5 U	4.5 U
2,4-Dichlorophenol	4.8 U	4.8 U
2,4-Dimethylphenol	6 U	6 U
2,4-Dinitrophenol	1.3 U	1.3 U
2,4-Dinitrotoluene	1.3 U	1.3 U
2,6-Dinitrotoluene	1.9 U	1.9 U
2-Chloronaphthalene	3 U	3 U
2-Chlorophenol	4.9 U	4.9 U
•	4.5 U	
2-Methylnaphthalene		3.5 U
2-Methylphenol	5.3 U	5.3 U
2-Nitrophenol	4.8 U	4.8 U
3,3-Dichlorobenzidine	20 U	20 U
4,6-Dinitro-2-methylphenol	2.2 U	2.2 U
4-Bromophenyl phenyl ether	2.1 U	2.1 U
4-Chloro-3-methylphenol	4 U	4 U
4-Chlorophenyl phenyl ether	2.6 U	2.6 U
4-Methylphenol	4.5 U	4.5 U
4-Nitrophenol	1.7 U	1.7 U
Acenaphthene	2.6 U	2.6 U
Acenaphthylene	2.5 U	2.5 U
Anthracene	0.8 U	0.8 U
Benzidine		*****
Benzo (b+k) fluoranthene (total)	1.8 U	1.8 U
Benzo(a)anthracene	0.53 U	0.53 U
Benzo(a)pyrene	0.97 U	0.97 U
Benzo(b)fluoranthene		
Benzo(g,h,i)perylene	0.98 U	0.98 U
Benzo(k)fluoranthene		
Bis(2-chloroethoxy)methane	3.6 U	3.6 U
Bis(2-chloroethyl)ether	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	4 U	4 U
Bis(2-ethylhexyl)phthalate	3.6 U	3.6 U
Butyl benzyl phthalate	0.91 U	0.91 U
Chrysene	0.96 U	0.96 U
Di-n-butyl phthalate	0.92 U	0.92 U
Di-n-octyl phthalate	0.93 U	0.93 U
Dibenz(a,h)anthracene	0.89 U	0.89 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Shallow Wells		
Well Identifier	HAR-28	HAR-33
FLUTe Sample Port		
Sample Type	Primary	Primary
Sample Date	11/20/02	11/21/02
Compound (ug/l)		
Diethyl phthalate	1.2 U	1.2 U
Dimethyl phthalate	1.9 U	1.9 U
Fluoranthene	0.78 U	0.78 U
Fluorene	2.6 U	2.6 U
Hexachlorobenzene	1.7 U	1.7 U
Hexachlorobutadiene	3.1 U	3.1 U
Hexachloroethane	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	0.78 U	0.78 U
Isophorone	3.2 U	3.2 U
n-Nitroso-di-n-propylamine	3.7 U	3.7 U
n-Nitrosodimethylamine	2.4 U	2.4 U
n-Nitrosodiphenylamine	2.8 U	2.8 U
Naphthalene	3.8 U	3.8 U
Nitrobenzene	3.3 U	3.3 U
Pentachlorophenol	0.165 U	0.165 U
Phenanthrene	1.4.U	1.4 U
Phenoi	4 U	4 U
Method	8270	8270
Laboratory	DMA	DMA

TABLE 7 SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Chatsworth Formation Wells						
Well Identifier	RD-01	RD-02	RD-02	RD-02	RD-04	RD-04
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	11/06/02	03/05/02	05/08/02	11/06/02	08/12/02	11/06/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	7.9 U	2.5 U	7.9 U	7.9 U	7.9 U	7.9 U
1,2-Dichlorobenzene	7 U	2.7 U	7 U	7 U	7 U	7 U
1,2-Diphenylhydrazine	8.8 U	3.9 U	3.9 U	Ü 8.8	3.9 U	8.8 U
1,3-Dichlorobenzene	6.8 U	2.5 U	2.5 U	6.8 U	2.5 U	6.8 U
1,3-Dinitrobenzene	8.4 U	200 U,T	2.1 U	8.4 U	2.1 U	8.4 U
1,4-Dichlorobenzene	7.8 U	2.2 U	2.2 U	7.8 U	2.2 U	7.8 U
2,4,6-Trichlorophenol	6.5 U	3.4 U	3.4 U	6.5 U	3.4 U	6.5 U
2,4-Dichlorophenol	7.6 U	3.5 U	3.5 U	7.6 U	3.5 U	7.6 U
2,4-Dimethylphenol	7.5 U	2.7 U	2.7 U	7.5 U	2.7 U	7.5 U
2,4-Dinitrophenol	4.4 U	2.2 U	2.2 U	4.4 U	2.2 U	4.4 U
2,4-Dinitrotoluene	9.7 U	3.2 U	3.2 U	9.7 U	3.2 U	9.7 U
2,6-Dinitrotoluene	9.3 U	3.7 U	3.7 U	9.3 U	3.7 U	9.3 U
2-Chloronaphthalene	7.4 U	2.5 U	2.5 U	7.4 U	2.5 U	7.4 U
2-Chlorophenol	7.7 U	3.1 U	3.1 U	7.7 U	3.1 U	7.7 U
2-Methylnaphthalene						
2-Methylphenol						
2-Nitrophenol	9.5 U	3.3 U	3.3 U	9.5 U	3.3 U	9.5 U
3,3-Dichlorobenzidine	8.3 U	5.6 U	5.6 U	8.3 U	5.6 U	8.3 U
4,6-Dinitro-2-methylphenol	12 U	2.3 U	2.3 U	12 U	2.3 U	12 U
4-Bromophenyl phenyl ether	8.7 U	4.5 U	4.5 U	8.7 U	4.5 U	8.7 U
4-Chloro-3-methylphenol	6.8 U	2.9 U	2.9 U	6.8 U	2.9 U	6.8 U
4-Chlorophenyl phenyl ether	7.2 U	3.8 U	3.8 U	7.2 U	3.8 U	7.2 U
4-Methylphenol		***				
4-Nitrophenol	9.9 U	1.6 U	1.6 U	9.9 U	1.6 U	9.9 U
Acenaphthene	7.1 U	3.1 U	3.1 U	7.1 U	3.1 U	7.1 U
Acenaphthylene	8.1 U	3 U	3 U	8.1 U	3 U	8.1 U
Anthracene	9 U	3.3 U	3.3 U	9 U	3.3 U	9 U
Benzidine	6.1 U	14 U	14 U	6.1 U	14 U	6.1 U
Benzo (b+k) fluoranthene (total)						
Benzo(a)anthracene	9.7 U	2.5 U	2.5 U	9.7 U	2.5 U	9.7 U
Benzo(a)pyrene	7.7 U	2 U	2 U	7.7 U	2 U	7.7 U
Benzo(b)fluoranthene	6.2 U	2.7 U	2.7 U	6.2 U	2.7 U	6.2 U
Benzo(g,h,i)perylene	9 U	6.2 U	6.2 U	9 U	6.2 U	9 U
Benzo(k)fluoranthene	9.2 U	3.1 U	3.1 U	9.2 U	3.1 U	9.2 U
Bis(2-chloroethoxy)methane	8.1 U	4.8 U	4.8 U	8.1 U	4.8 U	8.1 U
Bis(2-chloroethyl)ether	7.9 U	2.6 U	2.6 U	7.9 U	2.6 U	7.9 U
Bis(2-chloroisopropyl)ether	8.2 U	4.3 U	4.3 U	8.2 U	4.3 U	8.2 U
Bis(2-ethylhexyl)phthalate	30 U	11 U	11 U	30 U	11 U	30 U
Butyl benzyl phthalate	9.2 U	3.7 U	3.7 U	9.2 U	3.7 U	9.2 U
Chrysene	7.6 U	2.4 U	2.4 U	7.6 U	2.4 U	7.6 U
Di-n-butyl phthalate	12 U	3.1 U	3.1 U	12 U	3.1 U	12 U
Di-n-octyl phthalate	11 U	3.1 U	3.9 U	11 U	3.1 U	11 U
Dibenz(a,h)anthracene	7.8 U	5.1 U	5.1 U	7.8 U	5.1 U	7.8 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	RD-01	RD-02	RD-02	RD-02	RD-04	RD-04
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	11/06/02	03/05/02	05/08/02	11/06/02	08/12/02	11/06/02
Compound (ug/l)						
Diethyl phthalate	7.5 U	3.7 U	3.7 U	7.5 U	3.7 U	7.5 U
Dimethyl phthalate	7 U	3.5 U	3.5 U	7 U	3.5 U	7 U
Fluoranthene	7.8 U	6.9 U	6.9 U	7.8 U	6.9 U	7.8 U
Fluorene	6.9 U	3.3 U	3.3 U	6.9 U	3.3 U	6.9 U
Hexachlorobenzene	8.8 U	4.2 U	4.2 U	8.8 U	4.2 U	8.8 U
Hexachlorobutadiene	5.7 U	2.3 U	2.3 U	5.7 U	2.3 U	5.7 U
Hexachloroethane	8.7 U	2.3 U	2.3 U	8.7 U	2.3 U	8.7 U
Indeno(1,2,3-cd)pyrene	9 U	4.8 U	4.8 U	9 U	4.8 U	9 U
Isophorone	7.9 U	3.7 U	3.7 U	7.9 U	3.7 U	7.9 U
n-Nitroso-di-n-propylamine	9 U	4.4 U	4.4 U	9 U	4.4 U	9 U
n-Nitrosodimethylamine	9.4 U	10 U	10 U	9.4 U	10 U	9.4 U
n-Nitrosodiphenylamine	4.4 U	3.5 U	3.5 U	4.4 U	3.5 U	4.4 U
Naphthalene	7.3 U	2.2 U	2.2 U	7.3 U	2.2 U	7.3 U
Nitrobenzene	9.6 U	3.2 U	3.2 U	9.6 U	3.2 U	9.6 U
Pentachlorophenol	19 U	2 U	2 U	19 U	2 U	19 U
Phenanthrene	9 U	3.5 U	3.5 U	9 U	3.5 U	9 U
Phenol	7.6 U	4.1 U	4.1 U	7.6 U	4.1 U	7.6 U
Method	8270	8270	8270	8270	8270C	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells Well Identifier	RD-05A	RD-05A	RD-05A	RD-05A	RD-05B	RD-05C
FLUTe Sample Port		NO-03A	ND-03A	ND-05A	KD-03B	KD-00C
•		Dun	Split	Primary	Primary	Drimon
Sample Type	Primary	Dup	•	•	11/19/02	Primary
Sample Date	03/06/02	03/06/02	03/06/02	11/19/02	11/19/02	11/19/02
Compound (ug/l)				3.4 U	3.4 U	3.4 U
1,2,4-Trichlorobenzene		***		3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene				3.4 0	3.4 0	3.4 0
1,2-Diphenylhydrazine 1,3-Dichlorobenzene			***	3.1 U	3.1 U	3.1 U
1,3-Dictiorobenzene				3.1 U 20 U	3.1 U 20 U	20 U
•					3.2 U	3.2 U
1,4-Dichlorobenzene				3.2 U	3.2 U 4.5 U	4.5 U
2,4,6-Trichlorophenol		***		4.5 U		
2,4-Dichlorophenol				4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	•**			6 U	6 U	6 U
2,4-Dinitrophenol		***		1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene				1.3 U	1.3 U	1.3 U
2,6-Dinitrotoluene				1.9 U	1.9 U	1.9 U
2-Chloronaphthalene				3 U	3 U	3 U
2-Chlorophenol				4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	3.5 U	3.5 U	5 U	3.5 U	3.5 U	3.5 U
-Methylphenol		******		5.3 U	5.3 U	5.3 U
-Nitrophenol	•			4.8 U	4.8 U	4.8 U
,3-Dichlorobenzidine				20 U	20 U	20 U
,6-Dinitro-2-methylphenol				2.2 U	2.2 U	2.2 U
-Bromophenyl phenyl ether	***			2.1 U	2.1 U	2.1 U
l-Chloro-3-methylphenol				4 U	4 U	4 U
-Chlorophenyl phenyl ether				2.6 U	2.6 U	2.6 U
l-Methylphenol		****		4.5 U	4.5 U	4.5 U
l-Nitrophenol		***		1.7 U	1.7 U	1.7 U
Acenaphthene				2.6 U	2.6 U	2.6 U
Acenaphthylene				2.5 U	2.5 U	2.5 U
Anthracene				U 8.0	U 8.0	0.8 U
Benzidine						
Benzo (b+k) fluoranthene (total)				1.8 U	1.8 U	1.8 U
Benzo(a)anthracene				0.53 U	0.53 U	0.53 U
Benzo(a)pyrene		***		0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene						
Benzo(g,h,i)perylene				0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene						
Bis(2-chloroethoxy)methane				3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether				3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether				4 U	4 U	4 U
Bis(2-ethylhexyl)phthalate				3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate		***		0.91 U	0.91 U	0.91 U
Chrysene		***		0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate				0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate		***		0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene				0.89 U	0.89 U	0.89 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells					·····	
Well Identifier	RD-05A	RD-05A	RD-05A	RD-05A	RD-05B	RD-05C
FLUTe Sample Port					***	
Sample Type	Primary	Dup	Split	Primary	Primary	Primary
Sample Date	03/06/02	03/06/02	03/06/02	11/19/02	11/19/02	11/19/02
Compound (ug/l)					· · ·	
Diethyl phthalate				1.2 U	1.2 U	1.2 U
Dimethyl phthalate				1.9 U	1.9 Ս	1.9 U
Fluoranthene			***	0.78 U	0.78 U	0.78 U
Fluorene				2.6 U	2.6 U	2.6 U
Hexachlorobenzene				1.7 U	1.7 U	1.7 U
Hexachlorobutadiene				3.1 U	3.1 U	3.1 U
Hexachloroethane				2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene			***	0.78 U	0.78 U	0.78 U
Isophorone				3.2 U	3.2 U	3.2 U
n-Nitroso-di-n-propylamine				3.7 U	3.7 U	3.7 U
n-Nitrosodimethylamine				2.4 U	2.4 U	2.4 U
n-Nitrosodiphenylamine	***			2.8 U	2.8 U	2.8 U
Naphthalene	3.8 U	3.8 U	4 U	3.8 U	3.8 U	3.8 U
Nitrobenzene				3.3 U	3.3 U	3.3 U
Pentachlorophenol				0.165 U	0.165 U	0.165 U
Phenanthrene				1.4 U	1.4 U	1.4 U
Phenol				4 U	4 U	4 U
Method	8270	8270	8270	8270	8270	8270
Laboratory	DMA	DMA	AmA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	RD-08	RD-10	RD-10	RD-10	RD-10	RD-44
FLUTe Sample Port	***			Comp	Comp	
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	11/20/02	03/05/02	05/09/02	08/20/02	11/07/02	03/05/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	3.4 U	2.5 U	7.9 U	7.9 U	7.9 U	2.5 U
1,2-Dichlorobenzene	3.4 U	2.7 U	7 U	7 U	7 U	2.7 U
1,2-Diphenylhydrazine		3.9 U	3.9 U	3.9 U	8.8 U	3.9 U
1,3-Dichlorobenzene	3.1 U	2.5 U	2.5 U	2.5 U	6.8 U	2.5 U
1,3-Dinitrobenzene	20 U	200 U,T	2.1 U	2.1 U	8.4 U	200 U,T
1,4-Dichlorobenzene	3.2 U	2.2 U	2.2 U	2.2 U	7.8 U	2.2 U
2,4,6-Trichlorophenol	4.5 U	3.4 U	3.4 U	3.4 U	6.5 U	3.4 U
2,4-Dichlorophenol	4.8 U	3.5 U	3.5 U	3.5 U	7.6 U	3.5 U
2,4-Dimethylphenol	6 U	2.7 U	2.7 U	2.7 U	7.5 U	2.7 U
2,4-Dinitrophenol	1.3 U	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U
2,4-Dinitrotoluene	1.3 U	3.2 U	3.2 U	3.2 U	9.7 U	3.2 U
2,6-Dinitrotoluene	1.9 U	3.7 U	3.7 U	3.7 U	9.3 U	3.7 U
2-Chloronaphthalene	3 U	2.5 U	2.5 U	2.5 U	7.4 U	2.5 U
2-Chlorophenol	4.9 U	3.1 U	3.1 U	3.1 U	7.7 U	3.1 U
2-Methylnaphthalene	3.5 U					
2-Methylphenol	5.3 U				***	
2-Nitrophenol	4.8 U	3.3 U	3.3 U	3.3 U	9.5 U	3.3 U
3,3-Dichlorobenzidine	20 U	5.6 U	5.6 U	5.6 U	8.3 U	5.6 U
4,6-Dinitro-2-methylphenol	2.2 U	2.3 U	2.3 U	2.3 U	12 U	2.3 U
4-Bromophenyl phenyl ether	2.1 U	4.5 U	4.5 U	4.5 U	8.7 U	4.5 U
4-Chloro-3-methylphenol	4 U	2.9 U	2.9 U	2.9 U	6.8 U	2.9 U
4-Chlorophenyl phenyl ether	2.6 U	3.8 U	3.8 U	3.8 U	7.2 U	3.8 U
4-Methylphenol	4.5 U					
4-Nitrophenol	1.7 U	1.6 U	1.6 U	1.6 U	9.9 U	1.6 U
Acenaphthene	2.6 U	3.1 U	3.1 U	3.1 U	7.1 U	3.1 U
Acenaphthylene	2.5 U	3 U	3 U	3 U	8.1 U	3 U
Anthracene	0.8 U	3.3 U	3.3 U	3.3 U	9 U	3.3 U
Benzidine		14 U	14 U	14 U	6.1 U	14 U
Benzo (b+k) fluoranthene (total)	1.8 U					
Benzo(a)anthracene	0.53 U	2.5 U	2.5 U	2.5 U	9.7 U	2.5 U
Benzo(a)pyrene	0.97 U	2 U	2 U	2 U	7.7 U	2 U
Benzo(b)fluoranthene		2.7 U	2,7 U	2.7 U	6.2 U	2.7 U
Benzo(g,h,i)perylene	0.98 U	6.2 U	6.2 U	6.2 U	9 U	6.2 U
Benzo(k)fluoranthene		3.1 U	3.1 U	3.1 U	9.2 U	3.1 U
Bis(2-chloroethoxy)methane	3.6 U	4.8 U	4.8 U	4.8 U	8.1 U	4.8 U
Bis(2-chloroethyl)ether	3.6 U	2.6 U	2.6 U	2.6 U	7.9 U	2.6 U
Bis(2-chloroisopropyl)ether	4 U	4.3 U	4.3 U	4.3 U	8.2 U	4.3 U
Bis(2-ethylhexyl)phthalate	3.6 U	11 U	11 U	11 U	30 U	11 U
Butyl benzyl phthalate	0.91 U	3.7 U	3.7 U	3.7 U	9.2 U	3.7 U
Chrysene	0.96 U	2.4 U	2.4 U	2.4 U	7.6 U	2.4 U
Di-n-butyl phthalate	0.92 U	3.1 U	3.1 U	7.2 J,L	12 U	3.1 U
Di-n-octyl phthalate	0.93 U	3.9 U	3.9 U	3.9 U	11 U	3.9 U
Dibenz(a,h)anthracene	0.89 U	5.1 U	5.1 U	5.1 U	7.8 U	5.1 U

TABLE 7SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells		· ·			Y	
Well Identifier	RD-08	RD-10	RD-10	RD-10	RD-10	RD-44
FLUTe Sample Port	***			Comp	Comp	
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	11/20/02	03/05/02	05/09/02	08/20/02	11/07/02	03/05/02
Compound (ug/l)						
Diethyl phthalate	1.2 U	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U
Dimethyl phthalate	1.9 U	3.5 U	3.5 U	3.5 U	7 U	3.5 U
Fluoranthene	0.78 U	6.9 U	6.9 U	6.9 U	7.8 U	6.9 U
Fluorene	2.6 U	3.3 U	3.3 U	3.3 U	6.9 U	3.3 U
Hexachlorobenzene	1.7 U	4.2 U	4.2 U	4.2 U	8.8 U	4.2 U
Hexachlorobutadiene	3.1 U	2.3 U	2.3 U	2.3 U	5.7 U	2.3 U
Hexachloroethane	2.4 U	2.3 U	2.3 U	2.3 U	8.7 U	2.3 U
Indeno(1,2,3-cd)pyrene	0.78 U	4.8 U	4.8 U	4.8 U	9 U	4.8 U
Isophorone	3.2 U	3.7 U	3.7 U	3.7 U	7.9 U	3.7 U
n-Nitroso-di-n-propylaminė	3.7 U	4.4 U	4.4 U	4.4 U	9 U	4.4 U
n-Nitrosodimethylamine	2.4 U	10 U	10 U	10 U	9.4 U	10 U
n-Nitrosodiphenylamine	2.8 U	3.5 U	3.5 U	3.5 U	4.4 U	3.5 U
Naphthalene	3.8 U	2.2 U	2.2 U	2.2 U	7.3 U	2.2 U
Nitrobenzene	3.3 U	3.2 U	3.2 U	3.2 U	9.6 U	3.2 U
Pentachlorophenol	0.165 U	2 U	2 U	2 U	19 U	2 U
Phenanthrene	1.4 U	3.5 U	3.5 U	3.5 U	9 U	3.5 U
Phenol	4 U	4.1 U	4.1 U	4.1 U	7.6 U	4.1 U
Method	8270	8270	8270	8270C	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						***************************************
Well Identifier	RD-44	RD-44	RD-44	RD-45B	RD-49A	RD-49A
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	05/07/02	08/13/02	11/05/02	11/13/02	03/07/02	05/07/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	7.9 U	7.9 U	7.9 U	3.4 U	2.5 U	7.9 U
1,2-Dichlorobenzene	7 U	7 U	7 U	3.4 U	2.7 U	7 U
1,2-Diphenylhydrazine	3.9 U	3.9 U	8.8 U		3.9 U	3.9 U
1,3-Dichlorobenzene	2.5 U	2.5 U	6.8 U	3.1 U,J	2.5 U	2.5 U
1,3-Dinitrobenzene	2.1 U	2.1 U	8.4 U	20 U	2.1 U	2.1 U
1,4-Dichlorobenzene	2.2 U	2.2 U	7.8 U	3.2 U	2.2 U	2.2 U
2,4,6-Trichlorophenol	3.4 U	3.4 U	6.5 U	4.5 U	3.4 U	3.4 U
2,4-Dichlorophenol	3.5 U	3.5 U	7.6 U	4.8 U	3.5 U	3.5 U
2,4-Dimethylphenol	2.7 U	2.7 U	7.5 U	6 U	2.7 U	2.7 U
2,4-Dinitrophenol	2.2 U	2.2 U	4.4 U	1.3 U	2.2 U	2.2 U
2,4-Dinitrotoluene	3.2 U	3.2 U	9.7 U	1.3 U	3.2 U	3.2 U
2,6-Dinitrotoluene	3.7 U	3.7 U	9.3 U	1.9 U	3.7 U	3.7 U
2-Chloronaphthalene	2.5 U	2.5 U	7.4 U	3 U	2.5 U	2.5 U
2-Chlorophenol	3.1 U	3.1 U	7.7 U	4.9 U,J	3.1 U	3.1 U
2-Methylnaphthalene				3.5 U		
2-Methylphenol	,			5.3 U		
2-Nitrophenol	3.3 U	3.3 U	9.5 U	4.8 U	3.3 U	3.3 U
3,3-Dichlorobenzidine	5.6 U	5.6 U	8.3 U	20 U	5.6 U	5.6 U
4,6-Dinitro-2-methylphenol	2.3 U	2.3 U	12 U	2.2 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	4.5 U	4.5 U	8.7 U	2.1 U	4.5 U	4.5 U
4-Chloro-3-methylphenol	2.9 U	2.9 U	6.8 U	4 U	2.9 U	2.9 U
4-Chlorophenyl phenyl ether	3.8 U	3.8 U	7.2 U	2.6 U	3.8 U	3.8 U
4-Methylphenol	****			4.5 U		
4-Nitrophenol	1.6 U	1.6 U	9.9 U	1.7 U	1.6 U	1.6 U
Acenaphthene	3.1 U	3.1 U	7.1 U	2.6 U	3.1 U	3.1 U
Acenaphthylene	3 U	3 U	8.1 U	2.5 U	3 U	3 U
Anthracene	3.3 U	3.3 U	9 U	0.8 U	3.3 U	3.3 U
Benzidine	14 U	14 U	6.1 U		14 U	14 U
Benzo (b+k) fluoranthene (total)				1.8 U		
Benzo(a)anthracene	2.5 U	2.5 U	9.7 U	0.53 U	2.5 U	2.5 U
Benzo(a)pyrene	2 U	2 U	7.7 U	0.97 U	2 U	2 U
Benzo(b)fluoranthene	2.7 U	2.7 U	6.2 U		2.7 U	2.7 U
Benzo(g,h,i)perylene	6.2 U	6.2 U	9 U	0.98 U	6.2 U	6.2 U
Benzo(k)fluoranthene	3.1 U	3.1 U	9.2 U		3.1 U	3.1 U
Bis(2-chloroethoxy)methane	4.8 U	4.8 U	8.1 U	3.6 U	4.8 U	4.8 U
Bis(2-chloroethyl)ether	2.6 U	2.6 U	7.9 U	3.6 U	2.6 U	2.6 U
Bis(2-chloroisopropyl)ether	4.3 U	4.3 U	8.2 U	4 U	4.3 U	4.3 U
Bis(2-ethylhexyl)phthalate	11 U	11 U	30 U	3.6 U	11 U	11 U
Butyl benzyl phthalate	3.7 U	3.7 U	9.2 U	0.91 U	3.7 U	3.7 U
Chrysene	2.4 U	2.4 U	7.6 U	0.96 U	2.4 U	2.4 U
Di-n-butyl phthalate	3.1 U	3.1 U	12 U	0.92 U	3.1 U	3.1 U
Di-n-octyl phthalate	3.9 U	3.9 U	11 U	0.93 U	3.9 U	3.9 U
Dibenz(a,h)anthracene	5.1 U	5.1 U	7.8 U	0.89 U	5.1 U	5.1 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	RD-44	RD-44	RD-44	RD-45B	RD-49A	RD-49A
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	05/07/02	08/13/02	11/05/02	11/13/02	03/07/02	05/07/02
Compound (ug/l)						
Diethyl phthalate	3.7 U	3.7 U	7.5 U	1.2 U	3.7 U	3.7 U
Dimethyl phthalate	3.5 U	3.5 U	7 U	1.9 U	3.5 U	3.5 U
Fluoranthene	6.9 U	6.9 U	7.8 U	0.78 U	6.9 U	6.9 U
Fluorene	3.3 U	3.3 U	6.9 U	2.6 U	3.3 U	3.3 U
Hexachlorobenzene	4.2 U	4.2 U	8.8 U	1.7 U	4.2 U	4.2 U
Hexachlorobutadiene	2.3 U	2.3 U	5.7 U	3.1 U	2.3 U ·	2.3 U
Hexachloroethane	2.3 U	2.3 U	8.7 U	2.4 U	2.3 U	2.3 U
Indeno(1,2,3-cd)pyrene	4.8 U	4.8 U	9 U	0.78 U	4.8 U	4.8 U
Isophorone	3.7 U	3.7 U	7.9 U	3.2 U	3.7 U	3.7 U
n-Nitroso-di-n-propylaminë	4.4 U	4.4 U	9 U	3.7 U	4.4 U	4.4 U
n-Nitrosodimethylamine	10 U	10 U	9.4 U	2.4 U	10 U	10 U
n-Nitrosodiphenylamine	3.5 U	3.5 U	4.4 U	2.8 U	3.5 U	3.5 U
Naphthalene	2.2 U	2.2 U	7.3 U	3.8 U	2.2 U	2.2 U
Nitrobenzene	3.2 U	3.2 U	9.6 U	3.3 U	3.2 U	3.2 U
Pentachlorophenol	2 U	2 U	19 U	0.165 HTV,U	2 U	2 U
Phenanthrene	3.5 U	3.5 U	9 U	1.4 U	3.5 U	3.5 U
Phenol	4.1 U	4.1 U	7.6 U	4 U	4.1 U	4.1 U
Method	8270	8270C	8270	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						,
Well Identifier	RD-49A	RD-49A	RD-49B	RD-49B	RD-49B	RD-49B
FLUTe Sample Port	***					
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	08/20/02	11/04/02	03/07/02	05/07/02	08/14/02	11/04/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	7.9 U	7.9 U	2.5 U	7.9 U	7.9 U	7.9 U
1,2-Dichlorobenzene	7 U	7 U	2.7 U	7 U	7 U	7 U
1,2-Diphenylhydrazine	3.9 U	8.8 U	3.9 U	3.9 U	3.9 U	8.8 U
1,3-Dichlorobenzene	2.5 U	6.8 U	2.5 U	2.5 U	2.5 U	6.8 U
1,3-Dinitrobenzene	2.1 U	8.4 U	2.1 U	2.1 U	2.1 U	8.4 U
1,4-Dichlorobenzene	2.2 U	7.8 U	2.2 U	2.2 U	2.2 U	7.8 U
2,4,6-Trichlorophenol	3.4 U	6.5 U	3.4 U	3.4 U	3.4 U	6.5 U
2,4-Dichlorophenol	3.5 U	7.6 U	3.5 U	3.5 U	3.5 U	7.6 U
2,4-Dimethylphenol	2.7 U	7.5 U	2.7 U	2.7 U	2.7 U	7.5 U
2,4-Dinitrophenol	2.2 U	4.4 U	2.2 U	2.2 U	2.2 U	4.4 U
2,4-Dinitrotoluene	3.2 U	9.7 U	3.2 U	3.2 U	3.2 U	9.7 U
2,6-Dinitrotoluene	3.7 U	9.3 U	3.7 U	3.7 U	3.7 U	9.3 U
2-Chloronaphthalene	2.5 U	7.4 U	2.5 U	2.5 U	2.5 U	7.4 U
2-Chlorophenol	3.1 U	7.7 U	3.1 U	3.1 U	3.1 U	7. 7 U
2-Methylnaphthalene						
2-Methylphenol		***				
2-Nitrophenol	3.3 U	9.5 U	3.3 U	3.3 U	3.3 U	9.5 U
3,3-Dichlorobenzidine	5.6 U	8.3 U	5.6 U	5.6 U	5.6 U	8.3 U
4,6-Dinitro-2-methylphenol	2.3 U	12 U	2.3 U	2.3 U	2.3 U	12 U
4-Bromophenyl phenyl ether	4.5 U	8.7 U	4.5 U	4.5 U	4.5 U	8.7 U
4-Chloro-3-methylphenol	2.9 U	6.8 U	2.9 U	2.9 U	2.9 U	6.8 U
4-Chlorophenyl phenyl ether	3.8 U	7.2 U	3.8 U	3.8 U	3.8 U	7.2 U
4-Methylphenol						
4-Nitrophenol	1.6 U	9.9 U	1.6 U	1.6 U	1.6 U	9.9 U
Acenaphthene	3.1 U	7.1 U	3.1 U	3.1 U	3.1 U	7.1 U
Acenaphthylene	3 U	8.1 U	3 U	3 U	3 U	8.1 U
Anthracene	3.3 U	9 U	3.3 U	3.3 U	3.3 U	9 U
Benzidine	14 U	6.1 U	14 U	14 U	14 U	6.1 U
Benzo (b+k) fluoranthene (total)	***		***			
Benzo(a)anthracene	2.5 U	9.7 U	2.5 U	2.5 U	2.5 U	9.7 U
Benzo(a)pyrene	2 U	7.7 U	2 U	2 U	2 U	7.7 U
Benzo(b)fluoranthene	2.7 U	6.2 U	2.7 U	2.7 U	2.7 U	6.2 U
Benzo(g,h,i)perylene	6.2 U	9 U	6.2 U	6.2 U	6.2 U	9 U
Benzo(k)fluoranthene	3.1 U	9.2 U	3.1 U	3.1 U	3.1 U	9.2 U
Bis(2-chloroethoxy)methane	4.8 U	8.1 U	4.8 U	4.8 U	4.8 U	8.1 U
Bis(2-chloroethyl)ether	2.6 U	7.9 U	2.6 U	2.6 U	2.6 U	7.9 U
Bis(2-chloroisopropyl)ether	4.3 U	8.2 U	4.3 U	4.3 U	4.3 U	8.2 U
Bis(2-ethylhexyl)phthalate	11 U	30 U	11 U	11 U	11 U	30 U
Butyl benzyl phthalate	3.7 U	9.2 U	3.7 U	3.7 U	3.7 U	9.2 U
Chrysene	2.4 U	7.6 U	2.4 U	2.4 U	2.4 U	7.6 U
Di-n-butyl phthalate	3.6 J,L	12 U	3.1 U	3.8 J	3.1 U	12 U
Di-n-octyl phthalate	3.9 U	11 U	3.9 U	3.9 U	3.9 U	11 U
Dibenz(a,h)anthracene	5.1 U	7.8 U	5.1 U	5.1 U	5.1 U	7.8 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	RD-49A	RD-49A	RD-49B	RD-49B	RD-49B	RD-49B
FLUTe Sample Port	***					
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	08/20/02	11/04/02	03/07/02	05/07/02	08/14/02	11/04/02
Compound (ug/l)						
Diethyl phthalate	3.7 U	7.5 U	3.7 U	3.7 U	3.7 U	7.5 U
Dimethyl phthalate	3.5 U	7 U	3.5 U	3.5 U	3.5 U	7 U
Fluoranthene	6.9 U	7.8 U	6.9 U	6.9 U	6.9 U	7.8 U
Fluorene	3.3 U	6.9 U	3.3 U	3.3 U	3.3 U	6.9 U
Hexachlorobenzene	4.2 U	8.8 U	4.2 U	4.2 U	4.2 U	8.8 U
Hexachlorobutadiene	2.3 U	5.7 U	2.3 U	2.3 U	2.3 U	5.7 U
Hexachloroethane	2.3 U	8.7 U	2.3 U	2.3 U	2.3 U	8.7 U
Indeno(1,2,3-cd)pyrene	4.8 U	9 U	4.8 U	4.8 U	4.8 U	9 U
Isophorone	3.7 U	7.9 U	3.7 U	3.7 U	3.7 U	7.9 U
n-Nitroso-di-n-propylamine	4.4 U	9 U	4.4 U	4.4 U	4.4 U	9 U
n-Nitrosodimethylamine	10 U	9.4 U	10 U	10 U	10 U	9.4 U
n-Nitrosodiphenylamine	3.5 U	4.4 U	3.5 U	3.5 U	3.5 U	4.4 U
Naphthalene	2.2 U	7.3 U	2.2 U	2.2 U	2.2 U	7.3 U
Nitrobenzene	3.2 U	9.6 U	3.2 U	3.2 U	3.2 U	9.6 U
Pentachlorophenol	2 U	19 U	2 U	2 U	2 U	19 U
Phenanthrene	3.5 U	9 U	3.5 U	3.5 U	3.5 U	9 U
Phenol	4.1 U	7.6 U	4.1 U	4.1 U	4.1 U	7.6 U
Method	8270C	8270	8270	8270	8270C	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells	DD 400	DD 400	DD 400	DD 400	DD FOA	DD 504
Well Identifier	RD-49C	RD-49C	RD-49C	RD-49C	RD-58A	RD-58A
FLUTe Sample Port	D		D.:		D.:	D.
Sample Type	Primary	Primary	Primary	Primary	Primary	Dup
Sample Date	03/07/02	05/08/02	08/14/02	11/04/02	02/21/02	02/21/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	2.5 U	7.9 U	7.9 U	7.9 U		
1,2-Dichlorobenzene	2.7 U	7 U	7 U	7 U		
1,2-Diphenylhydrazine	3.9 U	3.9 U	3.9 U	8.8 U	10 10 W	
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	6.8 U		
1,3-Dinitrobenzene	2.1 U	2.1 U	2.1 U	8.4 U		
1,4-Dichlorobenzene	2.2 U	2.2 U	2.2 U	7.8 U		
2,4,6-Trichlorophenol	3.4 U	3.4 U	3.4 U	6.5 U		
2,4-Dichlorophenol	3.5 U	3.5 U	3.5 U	7.6 U	***	
2,4-Dimethylphenol	2.7 U	2.7 U	2.7 U	7.5 U	6 U	6 U
2,4-Dinitrophenol	2.2 U	2.2 U	2.2 U	4.4 U		
2,4-Dinitrotoluene	3.2 U	3.2 U	3.2 U	9.7 U		
2,6-Dinitrotoluene	3.7 U	3.7 U	3.7 U	9.3 U		
2-Chloronaphthalene	2.5 U	2.5 U	2.5 U	7.4 U		
2-Chlorophenol	3.1 U	3.1 U	3.1 U	7.7 U		
2-Methylnaphthalene		***	-			
2-Methylphenol					5.3 U	5.3 U
2-Nitrophenol	3.3 U	3.3 U	3.3 U	9.5 U		
3,3-Dichlorobenzidine	5.6 U	5.6 U	5.6 U	8.3 U		
4,6-Dinitro-2-methylphenol	2.3 U	2.3 U	2.3 U	12 U		
4-Bromophenyl phenyl ether	4.5 U	4.5 U	4.5 U	8.7 U		
4-Chloro-3-methylphenol	2.9 U	2.9 U	2.9 U	6.8 U		
4-Chlorophenyl phenyl ether	3.8 U	3.8 U	3.8 U	7.2 U		
4-Methylphenol					4.5 U	4.5 U
4-Nitrophenol	1.6 U	1.6 U	1.6 U	9.9 U		
Acenaphthene	3.1 U	3.1 U	3.1 U	7.1 U		
Acenaphthylene	3 U	3 U	3 U	8.1 U		
Anthracene	3.3 U	3.3 U	3.3 U	9 U		
Benzidine	14 U	14 U	14 U	6.1 U		***
Benzo (b+k) fluoranthene (total)	-	***				
Benzo(a)anthracene	2.5 U	2.5 U	2.5 U	9.7 U		
Benzo(a)pyrene	2 U	2 U	2 U	7.7 U		
Benzo(b)fluoranthene	2.7 U	2.7 U	2.7 U	6.2 U		
Benzo(g,h,i)perylene	6.2 U	6.2 U	6.2 U	9 U	***	
Benzo(k)fluoranthene	3.1 U	3.1 U	3.1 U	9.2 U		
Bis(2-chloroethoxy)methane	4.8 U	4.8 U	4.8 U	8.1 U		
Bis(2-chloroethyl)ether	2.6 U	2.6 U	2.6 U	7.9 U		
Bis(2-chloroisopropyl)ether	4.3 U	4.3 U	4.3 U	8.2 U		
Bis(2-ethylhexyl)phthalate	11 U	11 U	11 U	30 U		
Butyl benzyl phthalate	3.7 U	3.7 U	3.7 U	9.2 U		
Chrysene	2.4 U	2.4 U	2.4 U	7.6 U		***
Di-n-butyl phthalate	3.1 U	3.1 U	3.1 U	12 U		
Di-n-octyl phthalate	3.9 U	3.9 U	3.9 U	11 U		
Dibenz(a,h)anthracene	5.1 U	5.1 U	5.1 U	7.8 U		

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells				·		
Well Identifier	RD-49C	RD-49C	RD-49C	RD-49C	RD-58A	RD-58A
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Dup
Sample Date	03/07/02	05/08/02	08/14/02	11/04/02	02/21/02	02/21/02
Compound (ug/l)						
Diethyl phthalate	3.7 U	3.7 U	3.7 U	7.5 U		
Dimethyl phthalate	3.5 U	3.5 U	3.5 U	7 U		
Fluoranthene	6.9 U	6.9 U	6.9 U	7.8 U		
Fluorene	3.3 U	3.3 U	3.3 U	6.9 U		
Hexachlorobenzene	4.2 U	4.2 U	4.2 U	8.8 U		
Hexachlorobutadiene	2.3 U	2.3 U	2.3 U	5.7 U	•	
Hexachloroethane	2.3 U	2.3 U	2.3 U	8.7 U		
Indeno(1,2,3-cd)pyrene	4.8 U	4.8 U	4.8 U	9 U		
Isophorone	3.7 U	3.7 U	3.7 U	7.9 U		
n-Nitroso-di-n-propylamine	4.4 U	4.4 U	4.4 U	9 U		
n-Nitrosodimethylamine	10 U	10 U	10 U	9.4 U		
n-Nitrosodiphenylamine	3.5 U	3.5 U	3.5 U	4.4 U		
Naphthalene	2.2 U	2.2 U	2.2 U	7.3 U		
Nitrobenzene	3.2 U	3.2 U	3.2 U	9.6 U		
Pentachiorophenol	2 U	2 U	2 U	19 U		
Phenanthrene	3.5 U	3.5 U	3.5 U	9 U		
Phenol	4.1 U	4.1 U	4.1 U	7.6 U	4 U	4 U
Method	8270	8270	8270C	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells		<u> </u>				
Well Identifier	RD-58A	RD-58A	RD-58B	RD-58B	RD-58B	RD-58C
FLUTe Sample Port						***
Sample Type	Split	Primary	Primary	Đup [*]	Primary	Primary
Sample Date	02/21/02	11/21/02	02/18/02	02/18/02	11/19/02	11/19/02
Compound (ug/l)						
1,2,4-Trichlorobenzene		3.4 U			3.4 U	3.4 U
1,2-Dichlorobenzene		3.4 U			3.4 U	3.4 U
1,2-Diphenylhydrazine	***			***		
1,3-Dichlorobenzene		3.1 U			3.1 U	3.1 U
1,3-Dinitrobenzene		20 U			20 U	20 U
1,4-Dichlorobenzene		3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
2,4,6-Trichlorophenol		4.5 U			4.5 U	4.5 U
2,4-Dichlorophenol		4.8 U			4.8 U	4.8 U
2,4-Dimethylphenol	5.1 U	6 U	***		6 U	6 U
2,4-Dinitrophenol		1.3 U			1.3 U	1.3 U
2,4-Dinitrotoluene		1.3 U			1.3 U	1.3 U
2,6-Dinitrotoluene	***	1.9 U			1.9 U	1.9 U
2-Chloronaphthalene	***	3 U			3 U	3 U
2-Chlorophenol		4.9 U			4.9 U	4.9 U
2-Methylnaphthalene		3.5 U			3.5 U	3.5 U
2-Methylphenol	3.3 U	5.3 U			5.3 U	5.3 U
2-Nitrophenol		4.8 U			4.8 U	4.8 U
3,3-Dichlorobenzidine		20 U			20 U	20 U
4,6-Dinitro-2-methylphenol		2.2 U			2.2 U	2.2 U
4-Bromophenyl phenyl ether		2.1 U			2.1 U	2.1 U
4-Chloro-3-methylphenol		4 U			4 U	4 U
4-Chlorophenyl phenyl ether		2.6 U	***		2.6 U	2.6 U
4-Methylphenol	4.0 U	4.5 U			4.5 U	4.5 U
4-Nitrophenol		1.7 U			1.7 U	1.7 U
Acenaphthene		2.6 U			2.6 U	2.6 U
Acenaphthylene		2.5 U	***		2.5 U	2.5 U
Anthracene		0.8 U		***	0.8 U	0.8 U
Benzidine						
Benzo (b+k) fluoranthene (total)		1.8 U			1.8 U	1.8 U
Benzo(a)anthracene		0.53 U			0.53 U	0.53 U
Benzo(a)pyrene		0.97 U			0.97 U	0.97 U
Benzo(b)fluoranthene				***	***	
Benzo(g,h,i)perylene		0.98 U	***		0.98 U	0.98 U
Benzo(k)fluoranthene			***			
Bis(2-chloroethoxy)methane		3.6 U			3.6 U	3.6 U
Bis(2-chloroethyl)ether		3.6 U			3.6 U	3.6 U
Bis(2-chloroisopropyl)ether		4 U			4 U	4 U
Bis(2-ethylhexyl)phthalate		3.6 U			3.6 U	3.6 U
Butyl benzyl phthalate		0.91 U	*		0.91 U	0.91 U
Chrysene		0.96 U	***		0.96 U	0.96 U
Di-n-butyl phthalate	***	0.92 U			0.92 U	0.92 U
Di-n-octyl phthalate	***	0.93 U			0.93 U	0.93 U
Dibenz(a,h)anthracene		0.89 U			0.89 U	0.89 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells			······································	•		
Well Identifier	RD-58A	RD-58A	RD-58B	RD-58B	RD-58B	RD-58C
FLUTe Sample Port	•••					
Sample Type	Split	Primary	Primary	Dup	Primary	Primary
Sample Date	02/21/02	11/21/02	02/18/02	02/18/02	11/19/02	11/19/02
Compound (ug/l)						
Diethyl phthalate		1.2 U			1.2 U	1.2 U
Dimethyl phthalate		1.9 U			1.9 U	1.9 U
Fluoranthene		0.78 U			0.78 U	0.78 U
Fluorene		2.6 U			2.6 U	2.6 U
Hexachlorobenzene		1.7 U			1.7 U	1.7 U
Hexachlorobutadiene		3.1 U			3.1 U -	3.1 U
Hexachloroethane	***	2.4 U			2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	***	0.78 U			0.78 U	0.78 U
Isophorone		3.2 U			3.2 U	3.2 U
n-Nitroso-di-n-propylamine		3.7 U			3.7 U	3.7 U
n-Nitrosodimethylamine		2.4 U			2.4 U	2.4 U
n-Nitrosodiphenylamine		2.8 U			2.8 U	2.8 U
Naphthalene		3.8 U			3.8 U	3.8 U
Nitrobenzene		3.3 U			3.3 U	3.3 U
Pentachlorophenol		0.165 U			0.165 U	0.165 U
Phenanthrene		1.4 U			1.4 U	1.4 U
Phenol	2.9 U 🕠	4 U			4 U	4 U
Method	8270	8270	8270	8270	8270	8270
Laboratory	AmA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						= ==
Well Identifier	HAR-07	HAR-08	HAR-16	HAR-17	HAR-21	HAR-26
FLUTe Sample Port			Comp			
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	05/14/02	11/20/02	11/06/02	05/07/02	11/06/02	11/20/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	3.3 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	3.2 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Diphenylhydrazine						
1,3-Dichlorobenzene	2.9 U	3.1 U	3.1 U	3.1 U	3.1 U	3.1 U
1,3-Dinitrobenzene	19 U	20 U	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	3 U	3.2 U	3.2 U	3.2 U	3.2 U	
2,4,6-Trichlorophenol	4.3 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	4.5 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	5.7 U	6 U	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	1.2 U	1.3 U	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dinitrotoluene	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
2-Chloronaphthalene	2.9 U	3 U	3 U	3 U	3 U	3 U
2-Chlorophenol	4.7 U	4.9 U	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	3.3 U	3.5 U	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	5 U	5.3 U	5.3 U	5.3 U	5.3 U	5.3 U
2-Nitrophenol	4.5 U	4.8 U	4.8 U	4.8 U	4.8 U	4.8 U
3,3-Dichlorobenzidine	19 U	20 U	20 U	20 U	20 U	20 U
1,6-Dinitro-2-methylphenol	2.1 U	2.2 U	2.2 U	2.2 U	2.2 U	2.2 U
1-Bromophenyl phenyl ether	2 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U
1-Chloro-3-methylphenol	3.8 U	4 U	4 U	4 U	4 U	4 U
4-Chiorophenyl phenyl ether	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
4-Methylphenol	4.3 U	4.5 U	4.5 U	4.5 U	4.5 U	4.5 U
4-Nitrophenol	1.6 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Acenaphthene	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	2.4 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
Anthracene	0.76 U	0.8 U	0.8 U	U 8.0	0.8 U	0.8 U
Benzidine						
Benzo (b+k) fluoranthene (total)	1.7 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	0.5 U	0.53 U	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	0.92 U	0.97 U	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene						
Benzo(g,h,i)perylene	0.93 U	0.98 U	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	,	***				
Bis(2-chloroethoxy)methane	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	3.4 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	3.8 U	4 U	4 U	4 U	4 U	4 U
Bis(2-ethylhexyl)phthalate	3.5 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	0.87 U	0.91 U	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	0.01 U	0.96 U	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	0.88 U	0.92 U	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	0.89 U	0.92 U	0.92 U	0.92 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	0.85 U	0.89 U	0.89 U	0.89 U	0.89 U	0.89 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells	······································					
Well Identifier	HAR-07	HAR-08	HAR-16	HAR-17	HAR-21	HAR-26
FLUTe Sample Port			Comp			****
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	05/14/02	11/20/02	11/06/02	05/07/02	11/06/02	11/20/02
Compound (ug/l)						
Diethyl phthalate	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U	1.2 U
Dimethyl phthalate	1.8 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U
Fluoranthene	0.74 U	0.78 U	0.78 Ų	0.78 U	0.78 U	0.78 U
Fluorene	2.5 U	2.6 U	2.6 U	2.6 U	2.6 U	2.6 U
Hexachlorobenzene	1.6 U	1.7 U	1.7 U	1.7 U	1.7 U	1.7 U
Hexachlorobutadiene	3 U	3.1 U	3.1 U	3.1 U	3.1 U ·	3.1 U
Hexachloroethane	2.3 U	2.4 U	2.4 U	2.4 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	0.74 U	0.78 U	0.78 U	0.78 U	0.78 U	0.78 U
Isophorone	3.1 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U
n-Nitroso-di-n-propylamine	3.5 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U
n-Nitrosodimethylamine	2.3 U	2.4 U	15 J	2.4 U	2.4 U	2.4 U
n-Nitrosodiphenylamine	2.6 U	2.8 U	2.8 U	2.8 U	2.8 U	2.8 U
Naphthalene	3.6 U	3.8 U	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	3.1 U	3.3 U	3.3 U	3.3 U	3.3 U	3.3 U
Pentachlorophenol	0.165 U	0.165 U	2.1 U	0.165 U	0.165 U	0.165 U
Phenanthrene	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	3.8 U	4 U	4 U	4 U	_ 4 U	4 U
Method	8270	8270	8270	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	WS-05	WS-05	WS-05	WS-05	WS-06	WS-06
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	03/07/02	05/07/02	08/13/02	11/05/02	03/07/02	05/08/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	2.5 U	7.9 U	7.9 U	7.9 U	2.5 U	7.9 U
1,2-Dichlorobenzene	2.7 U	7 U	7 U .	7 U	2.7 U	7 U
1,2-Diphenylhydrazine	3.9 U	3.9 U	3.9 U	8.8 U	3.9 U	3.9 U
1,3-Dichlorobenzene	2.5 U	2.5 U	2.5 U	6.8 U	2.5 U	2.5 U
1,3-Dinitrobenzene	2.1 U	2.1 U	2.1 U	8.4 U	2.1 U	2.1 U
1,4-Dichlorobenzene	2.2 U	2.2 U	2.2 U	7.8 U	2.2 U	2.2 U
2,4,6-Trichlorophenol	3.4 U	3.4 U	3.4 U	6.5 U	3.4 U	3.4 U
2,4-Dichlorophenol	3.5 U	3.5 U	3.5 U	7.6 U	3.5 U	3.5 U
2,4-Dimethylphenol	2.7 U	2.7 U	2.7 U	7.5 U	2.7 U	2.7 U
2,4-Dinitrophenol	2.2 U	2.2 U	2.2 U	4.4 U	2.2 U	2.2 U
2,4-Dinitrotoluene	3.2 U	3.2 U	3.2 U	9.7 U	3.2 U	3.2 U
2,6-Dinitrotoluene	3.7 U	3.7 U	3.7 U	9.3 U	3.7 U	3.7 U
2-Chloronaphthalene	2.5 U	2.5 U	2.5 U	7.4 U	2.5 U	2.5 U
2-Chlorophenol	3.1 U	3.1 U	3.1 U	7.7 U	3.1 U	3.1 U
2-Methylnaphthalene		terre				
2-Methylphenol		-		-		
2-Nitrophenol	3.3 U	3.3 U	3.3 U	9.5 U	3.3 U	3.3 U
3,3-Dichlorobenzidine	5.6 U	5.6 U	5.6 U	8.3 U	5.6 U	5.6 U
1,6-Dinitro-2-methylphenol	2.3 U	2.3 U	2.3 U	12 U	2.3 U	2.3 U
4-Bromophenyl phenyl ether	4.5 U	4.5 U	4.5 U	8.7 U	4.5 U	4.5 U
4-Chloro-3-methylphenol	2.9 U	2.9 U	2.9 U	6.8 U	2.9 U	2.9 U
4-Chlorophenyl phenyl ether	3.8 U	3.8 U	3.8 U	7.2 U	3.8 U	3.8 U
4-Methylphenol					***	
4-Nitrophenol	1.6 U	1.6 U	1.6 U	9.9 U	1.6 U	1.6 U
Acenaphthene	3.1 U	3.1 U	3.1 U	7.1 U	3.1 U	3.1 U
Acenaphthylene	3 U	3 U	3 U	8.1 U	3 U	3 U
Anthracene	3.3 U	3.3 U	3.3 U	9 U	3.3 U	3.3 U
Benzidine	14 U	14 U	14 U	6.1 U	14 U	14 U
Benzo (b+k) fluoranthene (total)		***				
Benzo(a)anthracene	2.5 U	2.5 U	2.5 U	9.7 U	2.5 U	2.5 U
Benzo(a)pyrene	2 U	2 U	2 U	7.7 U	2 U	2 U
Benzo(b)fluoranthene	2.7 U	2.7 U	2.7 U	6.2 U	2.7 U	2.7 U
Benzo(g,h,i)perylene	6.2 U	6.2 U	6.2 U	9 U	6.2 U	6.2 U
Benzo(k)fluoranthene	3.1 U	3.1 U	3.1 U	9.2 U	3.1 U	3.1 U
Bis(2-chloroethoxy)methane	4.8 U	4.8 U	4.8 U	8.1 U	4.8 U	4.8 U
Bis(2-chloroethyl)ether	2.6 U	2.6 U	2.6 U	7.9 U	2.6 U	2.6 U
Bis(2-chloroisopropyl)ether	4.3 U	4.3 U	4.3 U	8.2 U	4.3 U	4.3 U
Bis(2-ethylhexyl)phthalate	11 U	11 U	11 U	30 U	11 U	11 U
Butyl benzyl phthalate	3.7 U	3.7 U	3.7 U	9.2 U	3.7 U	3.7 U
Chrysene	2.4 U	2.4 U	2.4 U	7.6 U	2.4 U	2.4 U
Di-n-butyl phthalate	3.1 U	3.1 U	3.1 U	12 U	3.1 U	3.1 U
Di-n-octyl phthalate	3.9 U	3.9 U	3.9 U	11 U	3.9 U	3.9 U
Dibenz(a,h)anthracene	5.1 U	5.1 U	5.1 U	7.8 U	5.1 U	5.1 U

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	WS-05	WS-05	WS-05	WS-05	WS-06	WS-06
FLUTe Sample Port	***					
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	03/07/02	05/07/02	08/13/02	11/05/02	03/07/02	05/08/02
Compound (ug/l)						
Diethyl phthalate	3.7 U	3.7 U	3.7 U	7.5 U	3.7 U	3.7 U
Dimethyl phthalate	3.5 U	3.5 U	3.5 U	7 U	3.5 U	3.5 U
Fluoranthene	6.9 U	6.9 U	6.9 U	7.8 U	6.9 U	6.9 U
Fluorene	3.3 U	3.3 U	3.3 U	6.9 U	3.3 U	3.3 U
Hexachlorobenzene	4.2 U	4.2 U	4.2 U	8.8 U	4.2 U	4.2 U
Hexachlorobutadiene	2.3 U	2.3 U	2.3 U	5.7 U	2.3 U .	2.3 U
Hexachloroethane	2.3 U	2.3 U	2.3 U	8.7 U	2.3 U	2.3 U
Indeno(1,2,3-cd)pyrene	4.8 U	4.8 U	4.8 U	9 U	4.8 U	4.8 U
Isophorone	3.7 U	3.7 U	3.7 U	7.9 U	3.7 U	3.7 U
n-Nitroso-di-n-propylamine	4.4 U	4.4 U	4.4 U	9 U	4.4 U	4.4 U
n-Nitrosodimethylamine	10 U	10 U	10 U	9.4 U	10 U	10 U
n-Nitrosodiphenylamine	3.5 U	3.5 U	3.5 U	4.4 Ù	3.5 U	3.5 U
Naphthalene	2.2 U	2.2 U	2.2 U	7.3 U	2.2 U	2.2 U
Nitrobenzene	3.2 U	3.2 U	3.2 U	9.6 U	3.2 U	3.2 U
Pentachlorophenol	2 U	2 U	2 U	19 U	2 U	2 U
Phenanthrene	3.5 U	3.5 U	3.5 U	9 U	3.5 U	3.5 U
Phenol	4.1 U	4.1 U	4.1 U	7.6 U	4.1 U	4.1 U
Method	8270	8270	8270C	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

TABLE 7
SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells	1110.00		140.00			14/0 004
Well Identifier	WS-06	WS-06	WS-09	WS-09	WS-09	WS-09A
FLUTe Sample Port						
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	08/14/02	11/13/02	07/23/02	11/06/02	11/21/02	11/20/02
Compound (ug/l)						
1,2,4-Trichlorobenzene	7.9 U	7.9 U	7.9 U	7.9 U	3.4 U	3.4 U
1,2-Dichlorobenzene	7 U	7 U	7 U	7 U	3.4 U	3.4 U
1,2-Diphenylhydrazine	3.9 U	8.8 U	3.9 U	8.8 U		
1,3-Dichlorobenzene	2.5 U	6.8 U	2.5 U	6.8 U	3.1 U	3.1 U
1,3-Dinitrobenzene	2.1 U	8.4 U	2.1 U	8.4 U	20 U	20 U
1,4-Dichlorobenzene	2.2 U	7.8 U	2.2 U	7.8 U	3.2 U	3.2 U
2,4,6-Trichlorophenol	3.4 U	6.5 U	3.4 U	6.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	3.5 U	7.6 U	3.5 U	7.6 U	4.8 U	4.8 U
2,4-Dimethylphenol	2.7 U	7.5 U	2.7 U	7.5 U	6 U	6 U
2,4-Dinitrophenol	2.2 U	4.4 U	2.2 U	4.4 U	1.3 U	1.3 U
2,4-Dinitrotoluene	3.2 U	9.7 U	3.2 U	9.7 U	1.3 U	1.3 U
2,6-Dinitrotoluene	3.7 U	9.3 U	3.7 U	9.3 U	1.9 U	1.9 U
2-Chloronaphthalene	2.5 U	7.4 U	2.5 U	7.4 U	3 U	3 U
2-Chiorophenol	3.1 U	7.7 U	3.1 U	7.7 U	4.9 U	4.9 U
2-Methylnaphthalene					3.5 U	3.5 U
2-Methylphenol					5.3 U	5.3 U
2-Nitrophenol	3.3 U	9.5 U	3.3 U	9.5 U	4.8 U	4.8 U
3,3-Dichlorobenzidine	5.6 U	8.3 U	5.6 U	8.3 U	20 U	20 U
4,6-Dinitro-2-methylphenol	2.3 U	12 U	2.3 U	12 U	2.2 U	2.2 U
4-Bromophenyl phenyl ether	4.5 U	8.7 U	4.5 U	8.7 U	2.1 U	2.1 U
4-Chloro-3-methylphenol	2.9 U	6.8 U	2.9 U	6.8 U	4 U	4 U
4-Chlorophenyl phenyl ether	3.8 U	7.2 U	3.8 U	7.2 U	2.6 U	2.6 U
4-Methylphenol					4.5 U	4.5 U
4-Nitrophenol	1.6 U	9.9 U	1.6 U	9.9 U	1.7 U	1.7 U
Acenaphthene	3.1 U	7.1 U	3.1 U	7.1 U	2.6 U	2.6 U
Acenaphthylene	3 U	8.1 U	3 U	8.1 U	2.5 U	2.5 U
Anthracene	3.3 U	9 U	3.3 U	9 U	U 8.0	U 8.0
Benzidine	14 U	6.1 U	14 U	6.1 U		
Benzo (b+k) fluoranthene (total)					1.8 U	1.8 U
Benzo(a)anthracene	2.5 U	9.7 U	2.5 U	9.7 U	0.53 U	0.53 U
Benzo(a)pyrene	2 U	7.7 U	2 U	7.7 U	0.97 U	0.97 U
Benzo(b)fluoranthene	2.7 U	6.2 U	2.7 U	6.2 U		
Benzo(g,h,i)perylene	6.2 U	9 U	6.2 U	9 U	0.98 U	0.98 U
Benzo(k)fluoranthene	3.1 U	9.2 U	3.1 U	9.2 U		
Bis(2-chloroethoxy)methane	4.8 U	8.1 U	4.8 U	8.1 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	2.6 U	7.9 U	2.6 U	7.9 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	4.3 U	8.2 U	4.3 U	8.2 U	4 U	4 U
Bis(2-ethylhexyl)phthalate	11 U	30 U	11 U	30 U	3.6 U	3.6 U
Butyl benzyl phthalate	3.7 U	9.2 U	3.7 U	9.2 U	0.91 U	0.91 U
Chrysene	2.4 U	7.6 U	2.4 U	7.6 U	0.96 U	0.96 U
Di-n-butyl phthalate	3.1 U	12 U	3.1 U	12 U	0.92 U	0.92 U
Di-n-octyl phthalate	3.9 U	11 U	3.9 U	11 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	5.1 U	7.8 U	5.1 U	7.8 U	0.89 U	0.89 U

TABLE 7SUMMARY OF ANALYSES FOR SEMI-VOLATILE ORGANIC CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Chatsworth Formation Wells						
Well Identifier	WS-06	WS-06	WS-09	WS-09	WS-09	WS-09A
FLUTe Sample Port				***		
Sample Type	Primary	Primary	Primary	Primary	Primary	Primary
Sample Date	08/14/02	11/13/02	07/23/02	11/06/02	11/21/02	11/20/02
Compound (ug/l)						
Diethyl phthalate	3.7 U	7.5 U	3.7 U	7.5 U	1.2 U	1.2 U
Dimethyl phthalate	3.5 U	7 U	3.5 U	7 U	1.9 U	1.9 U
Fluoranthene	6.9 U	7.8 U	6.9 U	7.8 U	0.78 U	0.78 U
Fluorene	3.3 U	6.9 U	3.3 U	6.9 U	2.6 U	2.6 U
Hexachlorobenzene	4.2 U	8.8 U	4.2 U	8.8 U	1.7 U	1.7 U
Hexachlorobutadiene	2.3 U	5.7 U	2.3 U	5.7 U	3.1 U	3.1 U
Hexachloroethane	2.3 U	8.7 U	2.3 U	8.7 U	2.4 U	2.4 U
Indeno(1,2,3-cd)pyrene	4.8 U	9 U	4.8 U	9 U	0.78 U	0.78 U
Isophorone	3.7 U	7.9 U	3.7 U	7.9 U	3.2 U	3.2 U
n-Nitroso-di-n-propylamine	4.4 U	9 U	4.4 U	9 U	3.7 U	3.7 U
n-Nitrosodimethylamine	10 U	9.4 U	10 U	9.4 U	2.4 U	2.4 U
n-Nitrosodiphenylamine	3.5 U	4.4 U	3.5 U	4.4 U	2.8 U	2.8 U
Naphthalene	2.2 U	7.3 U	2.2 U	7.3 U	3.8 U	3.8 U
Nitrobenzene	3.2 U	9.6 U	3.2 U	9.6 U	3.3 U	3.3 U
Pentachlorophenol	2 U	19 U	2 U	19 U	0.165 U	0.165 U
Phenanthrene	3.5 U	9 U	3.5 U	9 U	1.4 U	1.4 U
Phenoi	4.1 U	7.6 U	4.1 U	7.6 U	4 U	4 U
Method	8270C	8270	8270C	8270	8270	8270
Laboratory	DMA	DMA	DMA	DMA	DMA	DMA

DMA .	=	Del Mar Analytical of Irvine, California.
AmA	=	American Analytics of Chatsworth, California
()	=	Analysis not performed.
Comp	=	Composite sample. RD-10 samples were composited from FLUTe ports 3, 6, and 9. The HAR-16 sample was composited from FLUTe ports 7, 8, 9, 10, 11 and 12.
Primary	=	Primary sample.
Dup	=	Sample duplicate.
Split	=	Sample split.
ug/l	=	Micrograms per liter.
HTV	=	Sample analyzed past holding time.
J	=	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).
L	=	Laboratory contaminant.
Т	=	Tentatively identified compound.
U	=	Not detected; numerical value represents the Method Detection Limit for that compound.

TABLE 8
SUMMARY OF ANALYSES FOR PERCHLORATE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Area	Sample Type	FLUTe Sample Port	FLUTe Sample Interval (feet below land surface)	Sample Date	Perchlorate (ug/l)	Lab Name
Shallow Wells	3			······		·	
SH-11	· III	Primary			02/15/02	0.43 U	DMA
RS-10	II	Primary			02/14/02	0.43 U	DMA
RS-54	IV	Primary			03/01/02	6	DMA
RS-54	IV	Primary			11/07/02	8.3	DMA
ES-31	IV	Primary			02/18/02	0.43 U	DMA
HAR-27	II	Primary			05/14/02	0.43 U	DMA
Chatsworth Fo	ormation Wells						
RD-01	I	Primary			11/06/02	1.5 U	DMA
RD-02	1	Primary			03/05/02	0.43 U	DMA
RD-02	1	Primary			05/08/02	0.43 U	DMA
RD-02	1	Primary			11/06/02	1.5 U	DMA
RD-03	I	Primary			11/11/02	1.5 U	DMA
RD-04	11	Primary			08/12/02	0.43 U	DMA
RD-04	11	Primary			11/06/02	1.5 U	DMA
RD-05A	UL, S of Area II	Primary			11/11/02	1.5 U	DMA
RD-05B	UL, S of Area II	Primary			11/11/02	1.5 U	DMA
RD-05C	UL, S of Area II	Primary			11/11/02	1.5 U	DMA
RD-06	UL, S of Area II	Primary			11/07/02	1.5 U	DMA
RD-10	I	Primary			03/05/02	54	DMA
RD-10(Comp)	I	Primary	3,6,9	Comp	05/09/02	180	DMA
RD-10	1	Primary	1	171-181	06/18/02	Dry	
RD-10	i	Primary	2	191-201	06/18/02	9.7	DMA
RD-10	1	Primary	3	211-221	06/18/02	58	DMA
RD-10	I	Primary	4	231-241	06/18/02	280	DMA
RD-10	1	Primary	5	251-261	06/18/02	240	DMA
RD-10	Ī	Primary	6	271-281	06/18/02	240	DMA
RD-10	l	Primary	7	291-301	06/18/02	190	DMA
RD-10	1	Primary	8	311-321	06/18/02	140	DMA
RD-10	1	Primary	9	331-341	06/18/02	150	DMA
RD-10	1	Primary	10	351-361	06/18/02	160	DMA
RD-10	1	Primary	11	371-381	06/18/02	140	DMA
RD-10	1	Primary	12	391-401	06/18/02	110	DMA
RD-10(Comp)	1	Primary	3,6,9	Comp	08/20/02	180	DMA
RD-10(Comp)	1	Primary	3,6,9	Comp	11/07/02	160	DMA
RD-14	IV	Primary			03/04/02	0.43 U	DMA
RD-15	IV	Primary			03/06/02	0.43 U	DMA
RD-17	IV	Primary			03/01/02	0.43 U	DMA
RD-18	IV	Primary			02/20/02	0.43 U	DMA
RD-19	IV	Primary			02/20/02	0.43 U	DMA
RD-20	IV	Primary			05/01/02	0.43 U	DMA
RD-24	IV	Primary		***	02/25/02	0.43 U	DMA
RD-25	IV	Primary			03/07/02	0.43 U	DMA
RD-26	П	Primary			03/04/02	0.43 U	DMA

TABLE 8
SUMMARY OF ANALYSES FOR PERCHLORATE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Area	Sample Type	FLUTe Sample Port	FLUTe Sample Interval (feet below land surface)	Sample Date	Perchlorate (ug/l)	Lab Name
RD-27	IV	Primary			03/06/02	0.43 U	DMA
RD-28	IV	Primary			02/25/02	0.43 U	DMA
RD-29	IV	Primary			05/03/02	0.43 U	DMA
RD-30	IV	Primary			03/11/02	0.43 U	DMA
RD-31	1	Primary	7	168-178	03/06/02	0.43 U	DMA
RD-32	Off-site, NE of Area I	Primary			02/28/02	0.43 U	DMA
RD-36B	Off-site, NE of Area I	Primary			02/25/02	0.43 U	DMA
RD-36C	Off-site, NE of Area I	Primary			02/26/02	0.43 U	DMA
RD-36D	Off-site, NE of Area I	Primary			02/26/02	0.43 U	DMA
RD-37	Off-site, NE of Area I	Primary			02/28/02	0.43 U	DMA
RD-38B	Off-site, NE of Area I	Primary			02/28/02	0.43 U	DMA
RD-39B	Off-site, NE of Area I	Primary			02/28/02	0.43 U	DMA
RD-40		Primary			03/01/02	0.43 U	DMA
RD-41A	ii	Primary		***	02/22/02	0.43 U	DMA
RD-41B	ii	Primary			02/25/02	0.43 U	DMA
RD-41C	;; 	Primary			02/25/02	0.43 U	DMA
RD-42	 	Primary			05/03/02	0.43 U	DMA
RD-43A	Off-site, Near Area I	Primary			02/21/02	0.43 U	DMA
RD-43A	Off-site, Near Area I	Primary			08/13/02	0.43 U	DMA
RD-43A	Off-site, Near Area I	Primary			10/31/02	0.43 U	DMA
RD-43B	Off-site, Near Area I	Primary			02/20/02	0.43 U	DMA
RD-43B	Off-site, Near Area I	Primary			08/12/02	0.43 U	DMA
RD-43B	Off-site, Near Area I	Primary			10/31/02	0.43 U	DMA
RD-43C	Off-site, Near Area I	Primary	p=-4		05/06/02	0.43 U	DMA
RD-43C	Off-site, Near Area I	Primary			08/12/02	0.43 U	DMA
RD-43C	Off-site, Near Area I	Primary			10/31/02	0.43 U	DMA
RD-44	I	Primary			03/05/02	0.43 U	DMA
RD-44	i	Primary			05/07/02	0.43 U	DMA
RD-44	i	Primary			08/13/02	0.43 U	DMA
RD-44	i	Primary			11/05/02	1.5 U	DMA
RD-46A	i	Primary			03/01/02	0.43 U	DMA
RD-47	i I	Primary			02/26/02	0.43 U	DMA
RD-48B	UL, SW of Area I	Primary			11/11/02	1.5 U	DMA
RD-48C	UL, SW of Area I	Primary			11/07/02	1.5 U	DMA
RD-49A	(I	Primary			03/07/02	0.43 U	DMA
RD-49A	" 	Primary			05/07/02	0.43 U	DMA
RD-49A	11	Primary			08/20/02	0.43 U	DMA
RD-49A	11	•			11/04/02	1.5 U	DMA
RD-49B	11	Primary Primary			03/07/02	0.43 U	DMA
RD-49B	11 11	Primary			05/07/02	0.43 U	DMA
RD-49B	11 11	Primary			08/14/02	0.43 U	DMA
RD-49B		Primary			11/04/02	1.5 U	DMA
RD-49C	11	Primary			03/07/02	0.43 U	DMA
RD-49C	11	Primary			05/08/02	0.43 U	DMA

TABLE 8
SUMMARY OF ANALYSES FOR PERCHLORATE, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Area	Sample Type	FLUTe Sample Port	FLUTe Sample Interval (feet below land surface)	Sample Date	Perchlorate (ug/l)	Lab Name
RD-49C	ll	Primary			08/14/02	0.43 U	DMA
RD-49C	H	Primary			11/04/02	1.5 U	DMA
RD-51B	H	Primary			02/21/02	0.43 U	DMA
RD-52B	I	Primary			02/20/02	0.43 U	DMA
RD-53	1	Primary	5	114-119	03/06/02	0.43 U	DMA
RD-55A	111	Primary		***	02/22/02	0.43 U	DMA
RD-55B	M	Primary			02/22/02	0.43 U	DMA
RD-58B	101	Primary			11/07/02	1.5 U	DMA
RD-59A	Off-site, W of Area IV	Primary			02/28/02	0.43 U	DMA
RD-59A	Off-site, W of Area IV	Primary			05/14/02	0.43 U	DMA
RD-59A	Off-site, W of Area IV	Primary			08/08/02	0.43 U	DMA
RD-59A	Off-site, W of Area IV	Primary	***		11/12/02	1.5 U	DMA
RD-59B	Off-site, W of Area IV	Primary			02/28/02	0.43 U	DMA
RD-59B	Off-site, W of Area IV	Primary			08/08/02	0.43 U	DMA
RD-59C	Off-site, W of Area IV	Primary			02/28/02	0.43 U	DMA
RD-59C	Off-site, W of Area IV	Primary		***	08/08/02	0.43 U	DMA
RD-66	Off-site, NE of Area I	Primary	6	176-186	03/06/02	0.43 U	DMA
RD-67	UL, S of Area IV	Primary			11/07/02	1.5 U	DMA
RD-68A	Off-site, N of Area III	Primary		***	02/28/02	0.43 U	DMA
RD-68B	Off-site, N of Area III	Primary			02/28/02	0.43 U	DMA
RD-71	Off-site, NE of Area I	Primary	10	232-242	03/06/02	0.43 U	DMA
RD-71	Off-site, NE of Area I	Split	10	232-242	03/06/02	3 U	AmA
RD-73	1	Primary	9	107-112	03/06/02	5	DMA
HAR-01	i	Primary	10	103-108	03/06/02	60	DMA
HAR-05	· ii	Primary			03/04/02	0.43 U	DMA
HAR-06	 11	Primary			03/04/02	0.43 U	DMA
HAR-21	 []	Primary			03/07/02	0.43 U	DMA
HAR-22	11	Primary			03/07/02	0.43 U	DMA
HAR-23	;; [[[Primary			08/29/02	1.5 U	DMA
HAR-25	1	Primary			03/11/02	180	DMA
WS-05	1	Primary			03/17/02	0.43 U	DMA
WS-05		Primary				0.43 U	DMA
WS-05	1	•			05/07/02 08/13/02	0.43 U	DMA
	-	Primary			11/05/02		DMA
WS-05	1	Primary				1.5 U	
WS-06	!	Primary			03/07/02	0.43 U	DMA
WS-06	!	Primary			05/08/02	0.43 U	DMA
WS-06	1	Primary			08/14/02	0.43 U	DMA
WS-06	1	Primary	***		11/13/02	1.5 U	DMA
WS-09	11	Primary			07/23/02	0.43 U	DMA
WS-09	11	Primary		*	11/06/02	1.5 U	DMA
WS-09A	[[Primary			11/11/02	1.5 U	DMA
OS-02	Off-site	Primary	***		03/01/02	0.43 U	DMA
OS-03	Off-site	Primary			03/01/02	0.43 U	DMA
OS-05	Off-site	Primary			03/01/02	0.43 U	DMA

SUMMARY OF ANALYSES FOR PERCHLORATE, 2002 Boeing Santa Susana Field Laboratory

Ventura County, California

Well Identifier	Area	Sample Type	FLUTe Sample Port	FLUTe Sample Interval (feet below land surface)	Sample Date	Perchlorate (ug/l)	Lab Name
OS-08	Off-site	Primary			02/28/02	0.43 U	DMA
OS-10	Off-site	Primary			02/28/02	0.43 U	DMA
OS-16	Off-site	Primary			03/12/02	0.43 U	DMA
OS-16	Off-site	Dup	****		08/23/02	0.43 U	DMA
OS-16	Off-site	Primary			08/23/02	0.43 U	DMA
OS-17	Off-site	Primary			03/14/02	0.43 U	DMA
OS-17	Off-site	Primary			08/28/02	0.43 U	DMA
OS-17	Off-site	Dup			08/28/02	0.43 U	DMA
OS-17	Off-site	Primary			12/18/02	1.5 U	DMA
OS-21	Off-site	Primary			03/06/02	0.43 U	DMA
OS-21	Off-site	Primary			11/12/02	1.5 U	DMA
OS-26	Off-site	Primary		***	03/08/02	0.43 U	DMA
OS-27	Off-site	Primary			03/08/02	0.43 U	DMA

Footnotes and Explanations:

ug/i micrograms per liter.

U Not detected; numerical value is the Detection Limit.

American Analytics of Chatsworth, California. AmA

Del Mar Analytical of Irvine, California. DMA

Primary Primary sample. Dup Sample duplicate. **Split** Sample split.

Composite sample. RD-10 sample was composited from FLUTe ports 3, 6 and 9. Comp

> FLUTe Sample **FLUTe Sample Port** Interval (feet below land surface) 3 211-221 6 271-281 9 331-341

TABLE 9SUMMARY OF ANALYSES FOR GROSS ALPHA AND BETA, AND TRITIUM ACTIVITIES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	Sample	EPA Method			Result (pCi/l)	
	Date	Number	Radionuclide	Activity	Error	MDA
Shallow Wells		·····				
RS-54	03/01/02	900.0	Gross Alpha	24.29	6.92	0.85
		900.0	Gross Beta	5.52	1.17	3.40
		906.0	Tritium	332	58	350
RS-54	11/07/02	900.0	Gross Alpha	16.9	6.4	6.52
		900.0	Gross Beta	11.7	3.5	4.79
		906.0	Tritium	1.83	110	186
ES-31	02/18/02	900.0	Gross Alpha	10.49	3.59	2.08
		900.0	Gross Beta	2.79	1.76	2.55
		906.0	Tritium	65	121	384
Chatsworth Forn	nation Wells					
RD-07	02/22/02	900.0	Gross Alpha	18.36	5.66	1.94
		900.0	Gross Beta	4.37	1.15	2.93
		906.0	Tritium	0	200	252
RD-07	08/20/02	900.0	Gross Alpha	4.94	3.5	3.94
		900.0	Gross Beta	5.90	1.6	2.16
		906.0	Tritium	-10.6	120	203
RD-15	03/06/02	900.0	Gross Alpha	7.84	3.91	3.01
		900.0	Gross Beta	4.77	1.32	2.75
		906.0	Tritium	0	78	259
RD-17	03/01/02	900.0	Gross Alpha	4.70	1.96	1.20
		900.0	Gross Beta	4.59	1.30	2.57
		906.0	Tritium	264	58	350
RD-21	03/06/02	900.0	Gross Alpha	5.04	2.93	3.64
		900.0	Gross Beta	3.07	1.20	2.30
		906.0	Tritium	0	77	259
RD-22	02/20/02	900.0	Gross Alpha	9.21	3.56	2.16
		900.0	Gross Beta	4.79	9.21	1.32
		906.0	Tritium	228	80	252
RD-23	03/01/02	900.0	Gross Alpha	3.05	1.94	2.08
		900.0	Gross Beta	3.66	1.29	2.38
		906.0	Tritium	304	59	350
RD-24	02/25/02	900.0	Gross Alpha	5.44	12.70	3.22
· ·		900.0	Gross Beta	3.90	11.26	2.60
		906.0	Tritium	285	58	350
RD-24	11/06/02	900.0	Gross Alpha	8.93	3.3	3.10
	,, -	900.0	Gross Beta	8.16	2.1	2.91
		906.0	Tritium	162	110	182
RD-25	03/07/02	900.0	Gross Alpha	6.00	3.25	4.40
	00.0.702	900.0	Gross Beta	4.53	1.37	2.74
		906.0	Tritium	0	78	259
RD-25	11/06/02	900.0	Gross Alpha	9.90	3.6	3.65
		900.0	Gross Beta	7.83	1.8	2.43
		906.0	Tritium	-95.2	100	182
RD-27	03/06/02	900.0	Gross Alpha	5.25	2.56	3.05
	00/00/02	900.0	Gross Beta	5.28	1.38	2.78
		906.0	Tritium	0	77	259
RD-27	08/22/02	900.0	Gross Alpha	2.42	3.0	4.22
	JUILLIUL	900.0	Gross Beta	4.47	3.1	4.90
		500.0	CIOSO DOLA	7.71	V. I	1.00

SUMMARY OF ANALYSES FOR GROSS ALPHA AND BETA, AND TRITIUM ACTIVITIES, 2002 Boeing Santa Susana Field Laboratory

Ventura County, California

Well ID	Sample	EPA Method	_		Result (pCi/l)	
	Date	Number	Radionuclide	Activity	Error	MDA
RD-28	02/25/02	900.0	Gross Alpha	29.36	5.90	4.84
		900.0	Gross Beta	1.74	0.42	3.26
		906.0	Tritium	324	63	350
RD-28	11/06/02	900.0	Gross Alpha	18.7	5.7	4.76
		900.0	Gross Beta	10.3	3.1	4.37
		906.0	Tritium	1280	140	181
RD-29	05/03/02	900.0	Gross Alpha	22.79	6.44	2.04
		900.0	Gross Beta	5.31	1.15	3.32
		906.0	Tritium	56	118	366
RD-30	03/11/02	900.0	Gross Alpha	14.94	4.10 -	4.24
	•	900.0	Gross Beta	5.03	1.16	3.26
		906.0	Tritium	264	82	264
RD-30	08/30/02	900.0	Gross Alpha	10.8	3.3	2.40
		900.0	Gross Beta	10.1	2.2	2.91
		906.0	Tritium	52.6	120	201
RD-33A	02/15/02	900.0	Gross Alpha	3.13	1.79	2.33
•		900.0	Gross Beta	6.36	1.55	2.87
		906.0	Tritium	257	122	384
RD-33B	02/15/02	900.0	Gross Alpha	3.19	2.09	1.35
		900.0	Gross Beta	2.78	1.31	1.89
		906.0	Tritium	0	118	384
RD-33B	08/21/02	906.0	Tritium	-56.4	120	208
RD-33C	02/15/02	900.0	Gross Alpha	4.29	2.45	1.43
	J. 10102	900.0	Gross Beta	3.45	1.34	2.14
		906.0	Tritium	175	121	384
RD-33C	08/20/02	906.0	Tritium	55.8	120	205
RD-34B	02/15/02	900.0	Gross Alpha	3.80	2.64	2.82
	02 10/02	900.0	Gross Beta	7.89	1.79	3.36
		906.0	Tritium	151	121	384
RD-34B	08/23/02	906.0	Tritium	-40.8	120	206
RD-34C	02/14/02	900.0	Gross Alpha	2.17	1.86	3.30
110-0-10	02/14/02	900.0	Gross Beta	4.40	1.53	2.30
		906.0	Tritium	0	115	384
RD-34C	08/28/02	906.0	Tritium	-74.5	120	210
RD-54A	08/14/02	906.0	Tritium	105	120	200
RD-54A	02/27/02	900.0	Gross Alpha	7.80	2.71	3.20
ND-04A	OZIZITOZ	900.0	Gross Beta	1.82	0.70	2.14
		906.0	Tritium	67	56	350
RD-54B	02/27/02	900.0	Gross Alpha	2.59	1.9	1.87
ハレージサロ	VELLIVE	900.0	Gross Alpha Gross Beta	4.40	1.50	2.52
		906.0	Tritium	4.40 191	1.50 59	2.52 350
RD-54B	08/21/02	906.0	Tritium	-21.9	120	210
RD-54B RD-54C	02/27/02		Gross Alpha			1.62
ND-040	UZIZIIUZ	900.0 900.0	Gross Alpna Gross Beta	1.77	1.38	1.62
			Gross Beta Tritium	1.27	1.01 57	350
RD-54C	08/22/02	906.0		221 67.4	130	208
RD-54C RD-57	02/14/02	906.0	Tritium Green Alpha			1.36
ופ-טו	02/14/02	900.0	Gross Alpha	2.54	1.46	2.04
		900.0	Gross Beta	3.15	1.23	2.04 384
DD 57	00/4//00	906.0	Tritium	10	120	
RD-57	08/14/02	906.0	Tritium	00	0	201

TABLE 9
SUMMARY OF ANALYSES FOR GROSS ALPHA AND BETA, AND TRITIUM ACTIVITIES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	Sample	EPA Method			Result (pCi/l)	
Well ID	Date	Number	Radionuclide	Activity	Error	MDA
RD-59A	02/28/02	900.0	Gross Alpha	2.03	1.75	1.69
		900.0	Gross Beta	3.06	1.36	2.09
		906.0	Tritium	536	115	350
RD-59A	08/08/02	906.0	Tritium	74.2	120	201
RD-59B	02/28/02	900.0	Gross Alpha	1.58	1.38	1.46
		900.0	Gross Beta	1.58	1.28	1.91
		906.0	Tritium	222	58	350
RD-59B	08/08/02	906.0	Tritium	55.1	120	202
RD-59C	02/28/02	900.0	Gross Alpha	0.23	1.68	2.92
		900.0	Gross Beta	1.84	0.94	1.92
		906.0	Tritium	0	59	350
RD-59C	08/08/02	906.0	Tritium	-43.8	120	204
RD-63	02/14/02	900.0	Gross Alpha	9.48	3.51	2.56
		900.0	Gross Beta	8.14	1.64	3.63
		906.0	Tritium	41	120	384
RD-64	02/28/02	900.0	Gross Alpha	5.10	2.67	2.83
		900.0	Gross Beta	5.93	1.10	2.28
		906.0	Tritium	204	58	350

Analyses were performed by Davi Laboratories of Pinole, California during the first and second quarters of 2002, and by Eberline Services of Richmond, California during the third and fourth quarters of 2002.

Results are presented as the activity plus or minus the error. Any activity is reported by the laboratory. Analytical results that are less than the procedure background value are shown as negative values. Samples are filtered and acidified in the field with the exception of tritium.

MDA = Minimum detectable activity. pCi/I = PicoCuries per liter.

TABLE 10
SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	RS-5	4	RS-54	4	ES	-31	RD-0)7	RD-	15
Sample Date	03/01/	02	11/07/0)2	02/1	8/02	02/22	/02	03/06	/02
Radionuclides (pCi/l)	Result	MDA	Result	MDA	Result	MDA	Result	MDA	Result	MDA
Gamma-Emitting										
Actinium-228	ND	3.00	ND	10.6	ND	5.00	ND	5.00	ND	7.53
Bismuth-212	ND	3.00	ND	19.6	ND	3.00	ND	3.00	ND	3.00
Bismuth-214	ND	3.00	ND	5.21	ND	3.00	ND	3.00	ND	3.00
Cobalt-57	ND	3.00	ND	2.34	ND	3.00	ND	3.00	ND	3.00
Cobalt-60	ND	3.00	ND	2.74	ND	3.00	ND	5.00	ND	3.00
Cesium-134	ND	3.00	ND	3.37	ND	3.00	ND	5.00	ND	3.00
Cesium-137	ND	2.00	ND	2.57	ND	3.00	ND	5.00	ND	2.00
Potassium-40	ND	5.00	ND	27.4	ND	5.00	ND	5.00	ND	5.00
Lead-210	ND	5.00	ND	242	ND	5.00	ND	5.00	ND	5.00
Lead-212	ND	3.00	ND	4.22	ND	3.00	ND	3.00	ND	3.00
Lead-214	ND	5.00	ND	5.59	ND	5.00	ND	5.00	ND	3.00
Radium-226	ND	3.00	ND	44.4	ND	3.00	ND	3.00	ND	3.00
Thorium-234	ND	5.00	ND	82.0	ND	5.00	ND	5.00	ND	10.00
Thallium-208	ND	5.00	ND	2.69	ND	5.00	ND	5.00	ND	10.00
Uranium-235	ND	7.47	ND	16.6	ND	3.00	ND	5.00	ND	1.00
Isotopic Uranium					<u> </u>					
and Thorium										
Thorium-228	0.43 +/- 1.00	1.00	0.033 +/- 0.049	0.091			0.21 +/- 1.00	1.00		
Thorium-230	0 +/- 1.00	1.00	0.037 +/- 0.057	0.128		***	0 +/- 1.00	1.00		
Thorium-232	0 +/- 1.00	1.00	0 +/- 0.008	0.031			0 +/- 1.00	1.00		
Uranium-233/234	16.44 +/- 5.00	1.00	14.9 +/- 0.71	0.079			9.22 +/- 3.00	3.00	3.07 +/- 1.00	1.00
Uranium-235	0.66 +/- 1.00	1.00	0.629 +/- 0.10	0.030			0.33 +/- 1.00	3.00	0.30 +/- 1.00	1.00
Uranium-238	16.38 +/- 5.00	1.00	13.3 +/- 0.65	0.070			8.19 +/- 3.00	3.00	2.84 +/- 1.00	1.00

SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002 Boeing Santa Susana Field Laboratory

Ventura County, California

Well	RD-1	7	RD	-21	RD	-22	RD-2	:3	RD-2	24
Sample Date	03/01/	02	03/0	6/02	02/2	0/02	03/01/	'02 ·	02/25	02
Radionuclides (pCi/l)	Result	MDA	Result	MDA	Result	MDA	Result	MDA	Result	MDA
Gamma-Emitting										
Actinium-228	ND	5.00	ND	5.00	ND	5.00	ND	5.00	5.43 +/- 0.84	0.93
Bismuth-212	ND	5.00	ND	3.00	ND	3.00	ND	5.00	ND	3.00
Bismuth-214	ND	5.00	ND	3.00	ND	3.00	ND	5.00	ND	3.00
Cobalt-57	ND	5.00	ND	3.00	ND	3.00	ND	5.00	ND	3.00
Cobalt-60	ND	5.00	ND	3.00	ND	5.00	ND	5.00	ND	5.00
Cesium-134	ND	3.00	ND	3.00	ND	5.00	ND	3.00	ND	5.00
Cesium-137	ND	3.00	ND	2.00	ND	5.00	ND	3.00	ND	5.00
Potassium-40	22.46 +/- 6.67	10.00	ND	5.00	ND	5.00	25.64 +/- 5.57	10.00	15.65 +/- 1.06	1.00
Lead-210	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Lead-212	ND	5.00	ND	3.00	ND	3.00	ND	5.00	ND	3.00
Lead-214	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Radium-226	ND	5.00	ND	3.00	ND	3.00	ND	5.00	ND	3.00
Thorium-234	ND	5.00	ND	5.00	ND	5.00	ND "	5.00	ND	5.00
Thallium-208	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Uranium-235	ND	5.00	ND	1.00	ND	5.00	ND	5.00	ND	5.00
Isotopic Uranium										
and Thorium			_	<u> </u>						
Thorium-228									-	
Thorium-230										
Thorium-232							-			
Uranium-233/234	_				_					
Uranium-235										
Uranium-238	-	***								

TABLE 10
SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	RD-	-24	RD	-25	RD	-25	RD	-27	RD	-27
Sample Date	11/0	6/02	03/0	7/02	11/0	6/02	03/0	6/02	08/2	2/02
Radionuclides (pCi/l)	Result	MDA	Result	MDA	Result	MDA	Result	MDA	Result	MDA
Gamma-Emitting								,		
Actinium-228	ND	17.7	ND	5.00	ND	19.2	ND	5.00	ND	354
Bismuth-212	ND	30.5	ND	3.00	ND	27.7	ND	3.00	ND	608
Bismuth-214	ND	8.27	ND	3.00	ND	8.67	ND	3.00	ND	182
Cobalt-57	ND	3.28	ND	3.00	ND	2.94	ND	3.00	ND	51.3
Cobalt-60	ND	4.17	ND	3.00	ND	4.39	ND	1.00	ND	83.5
Cesium-134	ND	4.76	ND	3.00	ND	5.38	ND	1.00	ND	109
Cesium-137	ND	3.98	ND	2.00	ND	4.56	ND	1.00	ND .	99.2
Potassium-40	ND	82.7	ND	5.00	ND	110	ND	5.00	ND	1430
Lead-210	ND	899	ND	5.00	ND	289	ND	5.00	ND	3850
Lead-212	ND	5.58	ND	3.00	ND	5.42	ND	3.00	ND	159
Lead-214	ND	7.94	ND	5.00	ND	8.09	ND	5.00	ND	175
Radium-226	ND	62.7	ND	3.00	l ND	59.5	ND	3.00	ND	1340
Thorium-234	ND	126	ND	5.00	ND	65.2	ND	5.00	ND	1880
Thallium-208	ND	4.11	ND	5.00	ND	3.99	ND	5.00	ND	96.1
Uranium-235	ND	24.1	ND	5.00	ND	19.5	ND	1.00	ND	498
Isotopic Uranium			<u> </u>		<u> </u>		-1			
and Thorium						•				
Thorium-228					<u> </u>	-				
Thorium-230		***					-			
Thorium-232				***						
Uranium-233/234										
Uranium-235										
Uranium-238										

TABLE 10 SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well	RD-2	28	RD	-28	RD-2	29	RD	-30	RD-	30
Sample Date	02/25	/02	11/0	6/02	05/03	/02	03/1	1/02	08/30	/02
Radionuclides (pCi/l)	Result	MDA	Result	MDA	Result	MDA	Result	MDA	Result	MDA
Gamma-Emitting										
Actinium-228	ND	5.00	ND	21.3	ND	5.00	ND	3.00	ND	41.7
Bismuth-212	ND	3.00	ND	35.0	ND	3.00	ND	3.00	ND	67.0
Bismuth-214	ND	3.00	ND	8.81	ND	3.00	ND	3.00	25.3 +/- 20	22.8
Cobalt-57	ND	3.00	ND	3.42	ND	3.00	ND	3.00	ND	5.63
Cobalt-60	ND	5.00	ND	5.30	ND	1.00	ND	3.00	ND	9.87
Cesium-134	ND	5.00	ND	5.40	ND	1.00	ND	3.00	ND	11.2
Cesium-137	ND	5.00	ND	4.73	ND	1.00	ND	5.00	ND	9.84
Potassium-40	ND	5.00	ND	79.3	ND	5.00	ND	5.00	ND	152
Lead-210	ND	5.00	ND	327	ND	5.00	ND	3.00	ND	654
Lead-212	ND	3.00	ND	6.71	ND	3.00	ND	3.00	ND	13.6
Lead-214	l ND	5.00	ND	9.09	ND	5.00	ND	5.00	32.2 +/- 22	19.7
Radium-226	ND	3.00	ND	69.2	ND	3.00	ND	3.00	ND	136
Thorium-234	ND	5.00	ND	105	ND	5.00	ND	5.00	ND	207
Thallium-208	ND	5.00	ND	4.91	ND	5.00	ND	3.00	ND	10.2
Uranium-235	ND	5.00	ND	25.8	ND	1.00	ND	5.00	ND	52.5
Isotopic Uranium										-
and Thorium										
Thorium-228	0 +/- 1.00	1.00								
Thorium-230	0 +/- 1.00	1.00								
Thorium-232	0 +/- 1.00	1.00								
Uranium-233/234	4.50 +/- 0.50	0.50	_		9.74 +/- 0.30	0.20				
Uranium-235	0.20 +/- 0.50	0.50			0.51 +/- 0.11	0.16				
Uranium-238	4.50 +/- 0.50	0.50			9.23 +/- 0.31	0.26				

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Well	RD-33		RD-S		RD-3		RD-		RD-34	
Sample Date Radionuclides (pCi/l)	02/15/ Activity	MDA	02/19 Activity	MDA	02/1	MDA	02/1: Activity	MDA	02/14/ Activity	MDA
Gamma-Emitting					<u> </u>		·			
Actinium-228	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Bismuth-212	ND	5.00	ND	5.00	ND	3.00	ND	5.00	ND	3.00
Bismuth-214	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Cobalt-57	ND	5.00	ND	5.00	ND	3.00	ND	5.00	ND	3.00
Cobalt-60	ND	5.00	ND	5.00	ND	3.00	ND	5.00	ND	3.00
Cesium-134	ND	3.00	ND	3.00	ND	5.00	ND	3.00	ND	3.00
Cesium-137	ND	3.00	ND	3.00	ND	5.00	ND	3.00	ND	1.00
Potassium-40	38.59 +/- 6.20	8.00	ND	6.00	ND	8.00	ND	5.00	32.20 +/- 11.03	5.00
Lead-210	ND	3.00	ND	5.00	ND	8.00	ND	5.00	ND	3.00
Lead-212	ND	5.00	ND	5.00	ND	3.00	ND	5.00	ND	3.00
Lead-214	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Radium-226	ND ND	5.00	ND	5.00	ND	5.00	ND	5.00	· ND	3.00
Thorium-234	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Thallium-208	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Uranium-235	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Isotopic Uranium			<u> </u>							
and Thorium										
Thorium-228										
Thorium-230										
Thorium-232			_							
Uranium-233/234										
Uranium-235										
Uranium-238										

TABLE 10
SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Weil	RD-54	1A	RD-	54B	RD-	54C	RD-5	7	RD-59	9A
Sample Date	02/27/	02	02/2	7/02	02/2	7/02	02/14/	02	02/28/	02
Radionuclides (pCi/l)	Activity	MDA	Activity	MDA	Activity	MDA	Activity	MDA	Activity	MDA
Gamma-Emitting										
Actinium-228	ND	3.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Bismuth-212	ND	3.00	ND	3.00	ND	5.00	ND	5.00	ND	5.00
Bismuth-214	ND	3.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Cobalt-57	ND	3.00	DN	3.00	ND	5.00	ND	5.00	ND	5.00
Cobalt-60	ND	3.00	ND	3.00	ND	5.00	ND	5.00	ND	5.00
Cesium-134	ND	3.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Cesium-137	ND	1.00	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Potassium-40	ND	5.00	ND	8.00	ND	5.00	29.04 +/- 10.42	15.00	16.54 +/- 6.80	10.00
Lead-210	ND	3.00	ND	8.00	ND	5.00	ND	5.00	ND	5.00
Lead-212	ND	3.00	ND	3.00	ND	7.00	ND	7.00	ND	5.00
Lead-214	ND	5.00	ND	5.00	ND	5.60	ND	5.60	ND	5.00
Radium-226	ND	3.00	l ND	5.00	l ND	5.00	ND	5.00	ND	5.00
Thorium-234	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Thallium-208	ND	3.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Uranium-235	ND	5.00	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Isotopic Uranium								····		
and Thorium										
Thorium-228	0 +/- 1.00	1.00	T							
Thorium-230	0 +/- 1.00	1.00]	***		'		
Thorium-232	0 +/- 1.00	1.00								
Uranium-233/234	4.10 +/- 0.19	1.00								
Uranium-235	0.10 +/- 0.10	1.00		***						
Uranium-238	4.00 +/- 0.17	1.00								

TABLE 10
SUMMARY OF ANALYSES FOR GAMMA-EMITTING RADIONUCLIDES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	RD-	59B	RD-	59C	RD-	63	RD-6	34
Sample Date	02/2	8/02	02/2	8/02	02/14	1/02	02/28	/02
Radionuclides (pCi/l)	Activity	MDA	Activity	MDA	Activity	MDA	Activity	MDA
Gamma-Emitting					-			
Actinium-228	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Bismuth-212	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Bismuth-214	ND	5.00	ND	5.00	ND	3.00	l ND	3.00
Cobalt-57	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Cobalt-60	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Cesium-134	ND	3.00	ND	3.00	ND	3.00	ND	3.00
Cesium-137	ND	3.00	ND	3.00	ND	2.00	ND	3.00
Potassium-40	ND	5.00	ND	5.00	ND	5.00	7.00 +/- 3.00	6.00
Lead-210	ND	5.00	ND	5.00	ND	5.00	ND	3.00
Lead-212	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Lead-214	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Radium-226	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Thorium-234	ND	5.00	ND	5.00	ND	5.00	ND	5.00
Thallium-208	ND	5.00	ND	5.00	ND	3.00	ND	5.00
Uranium-235	ND	5.00	ND	5.00_	ND	5.00	ND	5.00
Isotopic Uranium								
and Thorium								
Thorium-228	•							
Thorium-230								
Thorium-232			l					
Uranium-233/234							2.87 +/- 0.15	1.00
Uranium-235							0 +/- 1.00	1.00
Uranium-238							1.70 +/- 0.14	1.00

Detected concentrations are presented as the activity plus or minus the error.

Non-detectable results are presented as "ND" with the minimum detectable activity (MDA).

Analyses were performed by Davi Laboratories, California, during the first and second quarters, and by Eberline Services of Richmond, California, during the third and fourth quarters.

Analytical results that are less than the procedure background value are shown as negative values.

Samples are filtered and acidified in the field.

(---) Analysis not performed.

pCi/L = PicoCuries per liter.

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Inorganic Com	pounds									
Well Identifier			RS-08	HAR-09	HAR-12	HAR-14	HAR-15	HAR-27	HAR-28	HAR-32
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02	05/07/02	11/06/02	11/20/02	11/21/02
Compound	Units	MCL								
Antimony	ug/i	6	0.64 J	0.34 J	1.6 J	0.2 J	0.72 J	0.23 U,J	1 U,J	1.4 J
Arsenic	ug/l	50	0.33 J	0.71 J	0.51 J	0.29 U	3.5	58	1.5	0.29 U
Barium	ug/l	1000	54	39	39	33	210	110	52	52
Beryllium	ug/l	4	0.11 U	0.11 U	0.11 U	0.11 U	0.22 U	0.11 U	0.11 U	0.11 U
Cadmium	ug/I	5	0.09 J	0.79 J	0.053 ป	0.034 J	0.1 J	0.062 J	0.17 J	0.03 U
Chromium	ug/l	50	0.25 J	0.14 U	1.1 U	0.24 J	5.2	0.24 J	1 U	0.87 U,J
Cobalt	ug/l	NA	0.44 J	0.33 J	0.17 J	0.2 J	0.71 J	0.64 J	0.29 J	0,87 J
Copper	ug/l	1000 SMCL	2.3	3.8	0.67 J	0.43 J	8.2	0.93 U,J	1.5 J	0.68 J
Cyanide	mg/l	0.2	0.0037 U	0.0042 U	0.0042 U	0.0037 U	0.0037 U	0.0042 U	0.0042 U	0.0042 U
Lead	ug/l	15 ECAL	0.13 U	0.16 J	0.13 U	0.13 U	7.2	0.13 U	0.83 U,J	0.13 U
Mercury	mg/l	0.002	0.00005 U	0.00013 U,J	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Nickel	ug/l	100	0.1 J	0.76 J	0.1 U	0.1 U	8.8	0.1 U	0.1 U	5.7
Selenium	ug/l	50	3.1	0.64 J	0.59 U	1.7 J	0.59 U	1.2 J	0.63 J	0.61 J
Silver	ug/l	100 SMCL	0.054 U	0.054 U	0.054 U	0.054 U	0.11 J	0.054 U	0.054 U	0.054 U
Sulfide	mg/l	NA	0.029 U	0.029 U	0.029 U	0.032 J	0.029 U	0.029 U	0.029 J	0.072 J
Thallium	ug/l	2	0.24 J	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U	0.092 U
Tin	mg/l	NA	0.0023 U	0.0024 U	0.0024 U	0.0023 U	0.0023 U	0.0024 U	0.0024 U	0.0024 U
Vanadium	ug/i	50 ACAL	2.6	2.5	0.97 J	0.49 J	10	1.2	1.2	0.39 U
Zinc	ug/l	5000 SMCL	8 J	12 U,J	11 U,J	6.8 J	76	5.1 U,J	13 U,J	19 U,J

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Inorganic Com	pounds							_		
Well Identifier			HAR-33	RD-05A	RD-05B	RD-05C	RD-08	RD-45B	RD-58A	RD-58B
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/21/02	11/19/02	11/19/02	11/19/02	11/20/02	11/13/02	11/21/02	11/19/02
Compound	Units	MCL								
Antimony	ug/l	6	1.6 J	0.6 U,J	0.42 U,J	0.047 U,J	2.3	0.032 U	0.29 U,J	0.43 U,J
Arsenic	ug/l	50	0.29 U	0.29 U	0.29 U	0.29 U	0.29 U	0.94 J	0.29 U	0.29 U
Barium	ug/l	1000	60	61	32	37	24	66	64	55
Beryllium	ug/l	4	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U	0.11 U
Cadmium	ug/l	5	0.053 J	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U
Chromium	ug/l	50	1.2 U	0.54 U,J	0.21 U,J	0.66 U,J	0.94 U,J	0.14 U	0.92 U,J	0.72 U,J
Cobalt	ug/l	NA	0.74 J	0.98 J	0.17 J	0.14 J	0.058 J	0.28 J	1.9	0.12 J
Copper	ug/l	1000 SMCL	1.9 J	2.8	1.3 J	1.7 J	0.74 J	3.1	1.1 J	0.56 J
Cyanide	mg/l	0.2	0.0042 U	0.0057 J	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U
Lead	ug/l	15 ECAL	0.13 U	2.1	0.25 U,J	0.65 U,J	0.77 U,J	5.2	0.42 U,J	0.33 U,J
Mercury	mg/l	0.002	0.00005 U	0.00012 U,J	0.00013 U,J	0.00014 U,J	0.00005 U	0.00014 U,J	0.00005 U	0.00005 U
Nickel	ug/l	100	5.3	0.14 U,J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Selenium	ug/l	50	0.75 J	0.59 U	0.59 U	0.59 U	0.59 U	0.59 U	0.62 J	0.59 U
Silver	ug/l	100 SMCL '	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U	0.054 U
Sulfide	mg/l	NA	0.046 J	0.065 J	0.12	0.052 J	0.029 U	0.029 U	0.43	0.029 U
Thallium	ug/l	2	0.092 U	0.092 U	0.18 U,J	0.41 U,J	0.092 U	0.092 U	0.092 U	0.092 U
Tin	mg/l	NA	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U
Vanadium	ug/l	50 ACAL	1.1	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U	0.39 U
Zinc	ug/l	5000 SMCL	29 U	5000	28 U	170	19 U,J	860	5800	260

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Inorganic Con	npounds									
Well Identifier			RD-58C	HAR-07	HAR-08	HAR-17	HAR-21	HAR-26	WS-09	WS-09A
Sample Type			Primary							
Sampled Date			11/19/02	05/14/02	11/20/02	05/07/02	11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL.								
Antimony	ug/l	6	0.38 U,J	0.12 U,J	0.51 U,J	0.33 J	0.17 U,J	0.85 U,J	2.4	0.99 U,J
Arsenic	ug/l	50	0.29 U	0.29 U	0.66 J	0.29 U	0.29 U	0.29 U	0.75 J	1.8
Barium	ug/l	1000	97	30	59	92	47	28	59	44
Beryllium	ug/l	4	0.11 U							
Cadmium	ug/l	5	0.03 U	0.043 J	0.03 U	0.052 J	0.03 U	0.03 U	0.03 U	0.03 U
Chromium	ug/l	50	0.38 U,J	0.85 J	0.37 U,J	0.14 U	0.74 J	1.2 U	0.92 U,J	0.96 U,J
Cobalt	ug/l	NA	0.083 J	0.21 J	0.64 J	1.1	0.56 J	0.15 J	2	0.12 J
Copper	ug/l	1000 SMCL	1 J	1.9 J	2	9.6	2.7 U	0.87 J	2.9	4
Cyanide	mg/l	0.2	0.0042 U	0.0037 U	0.0042 U	0.0037 U	0.0042 U	0.0042 U	0.0042 U	0.0042 U
Lead	ug/l	15 ECAL	1.3 U	0.26 J	1.8 U	0.53 J	0.13 U	1.3 U	0.76 U,J	U,U 89.0
Mercury	mg/l	0.002	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U	0.00005 U
Nickel	ug/l	100	0.1 U	0.17 J	0.1 U	2.7	U,U 88.0	1.3 U	2.6	0.36 U,J
Selenium	ug/l	50	0.59 U	1.3 J						
Silver	ug/l	100 SMCL	0.054 U							
Sulfide	mg/l	NA	0.029 U	0.029 U	0.18	0.029 U	0.7	0.029 U	0.029 U	0.029 U
Thallium	ug/l	2	0.092 U	0.092 U	0.092 U	0.16 J	0.092 U	0.092 U	0.092 U	0.092 U
Tin	mg/l	NA	0.0024 U	0.0023 U	0.0024 U	0.0023 U	0.0024 U	0.0024 U	0.0024 U	0.0024 U
Vanadium	ug/l	50 ACAL	0.39 U	0.39 U	0.39 U	0.51 J	0.39 U	0.39 U	0.39 U	1.8
Zinc ·	ug/l	5000 SMCL	250	20	1400	57	230	210	1100	36

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Pesticides and Herbicide	s									
Well Identifier			RS-08	HAR-09	HAR-12	HAR-12	HAR-12	HAR-12	HAR-14	HAR-15
FLUTe Sample Port										
Sample Type			Primary	Primary	Primary	Dup	Split	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	03/12/02	03/12/02	03/12/02	11/20/02	05/07/02	05/07/02
Compound	Units	MCL								
Aldrin	ug/l	0.002 ACAL	0.0084 U	0.012 U	***	and the		0.012 U	0.0084 U	0.0084 U
alpha-BHC	ug/l	0.015 ACAL	0.011 U	0.017 U		-		0.017 U	0.011 U	0.011 U
beta-BHC	ug/l	0.025 ACAL	0.026 U	0.036 U				0.036 U	0.026 U	0.026 U
delta-BHC	ug/l	NA	0.0096 U	0.015 U				0.015 U	0.0096 U	0.0096 U
Gamma-BHC (Lindane)	ug/l	0.2	0.016 U	0.015 U	***			0.015 U	0.016 U	0.016 U
Chlordane	ug/l	0.1	0.67 U	0.057 U			405	0.057 U	0.67 U	0.67 U
Chlorobenzilate	ug/l	NA	10 U	10 U				10 U	10 U	10 U
4,4'-DDD	ug/l	NA	0.0065 U	0.013 U				0.013 U	0.0065 U	0.0065 U
1,4'-DDE	ug/l	NA	0.0052 U	0.013 U		***		0.013 U	0.0052 U	0.0052 U
4,4'-DDT	ug/l	NA	0.0081 U	0.019 U				0.019 U	0.0081 U	0.0081 U
Diallate	ug/i	NA	10 U	10 U				10 U	10 U	10 U
Dieldrin	ug/l	0.002 ACAL	0.0099 U	0.012 U		444	~~=	0.012 U	0.0099 U	0.0099 U
Dinoseb	ug/l	7	1.9 U	1.9 U	***			0.76 U	1.9 U	1.9 U
Endosulfan-l	ug/l	NA	0.0069 U	0.011 U				0.011 U	0.0069 U	0.0069 U
Endosulfan-II	ug/l	NA	0.0064 U	0.037 U			***	0.037 U	0.0064 U	0.0064 U
Endosulfan sulfate	ug/l	NA	0.021 U	0.025 U	***			0.025 U	0.021 U	0.021 U
Endrin	ug/l	2	0.0067 U	0.011 U				0.011 U	0.0067 U	0.0067 U
Endrin aldehyde	ug/l	NA	0.028 U	0.016 U			***	0.016 U	0.028 U	0.028 U
Heptachlor	ug/l	0.01	0.05 U	0.015 U				0.015 U	0.05 U	0.05 U
Heptachlor epoxide	ug/l	0.01	0.005 U	0.012 U,J				0.012 U	0.005 U	0.005 U
Isodrin	ug/l	NA	20 U	20 U				20 U	20 U	20 U
Kepone	ug/l	NA	200 U	200 U				200 U	200 U	200 U
Methoxychlor	ug/l	40	0.011 U	0.031 U				0.031 U	0.011 U	0.011 U
Aroclor 1016	ug/i	0.5(total)	0.22 U	0.19 U				0.19 U	0.22 U	0.22 U
Aroclor 1221	ug/l	0.5(total)	0.14 U	0.063 U				0.063 U	0.14 U	0.14 U
Aroclor 1232	ug/l	0.5(total)	0.13 U	0.13 U				0.13 U	0.13 U	0.13 U
Aroclor 1242	ug/l	0.5(total)	0.13 U	0.21 U				0.21 U	0.13 U	0.13 U

See last page of Table 11 for footnotes and explanations. Haley & Aldrich g:\projects\26472-roc\reports\m431\tables\M431.T11.xls

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Pesticides and Herbici	des									
Well Identifier			RS-08	HAR-09	HAR-12	HAR-12	HAR-12	HAR-12	HAR-14	HAR-15
FLUTe Sample Port						***			***	
Sample Type			Primary	Primary	Primary	Dup	Split	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	03/12/02	03/12/02	03/12/02	11/20/02	05/07/02	05/07/02
Compound	Units	MCL								
Aroclor 1248	ug/l	0.5(total)	0.13 U	0.2 U	***		***	0.2 U	0.13 U	0.13 U
Aroclor 1254	ug/l	0.5(total)	0.31 U	0.1 U				0.1 U	0.31 U	0.31 U
Aroclor 1260	ug/l	0.5(total)	0.21 U	0.11 U			~~~	0.11 U	0.21 U	0.21 U
Toxaphene	ug/l	3	1.3 U	1.3 U			400	1.3 U	1.3 U	1.3 U
2,4-D	ug/l	70	0.54 U	0.54 U	0.54 U	0.54 U	0.02 U	0.24 U	0.54 U	0.54 U
2,4,5-T	ug/l	NA	0.78 U	0.78 U	***			0.13 U	0.78 U	0.78 U
2,4,5-TP (Silvex)	ug/l	50	0.55 U	0.55 U	***			0.14 U	0.55 U	0.55 U
2,3,7,8-TCDD TEQ	pg/l	0.03	8.3 U	2.1 U			***	5.3 U	6.64 U	5.97 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Pesticides and Herbicide	S									
Well Identifier			HAR-27	HAR-28	HAR-33	RD-05A	RD-05B	RD-05C	RD-08	RD-45B
FLUTe Sample Port					***					
Sample Type			Primary							
Sampled Date			11/06/02	11/20/02	11/21/02	11/19/02	11/19/02	11/19/02	11/20/02	11/13/02
Compound	Units	MCL								
Aldrin	ug/l	0.002 ACAL	0.012 U	0.012 U	844	0.012 U				
alpha-BHC	ug/l	0.015 ACAL	0.017 U	0.017 U		0.017 U				
beta-BHC	ug/i	0.025 ACAL	0.036 U	0.036 U		0.036 U				
delta-BHC	ug/l	NA	0.015 U	0.015 U		0.015 U				
Gamma-BHC (Lindane)	ug/l	0.2	0.015 U	0.015 U	***	0.015 U				
Chlordane	ug/i	0.1	0.057 U	0.057 U		0.057 U				
Chlorobenzilate	ug/l	NA	10 บ	10 U						
4,4'-DDD	ug/l	NA	0.013 U	0.013 U	***	0.013 U				
4,4'-DDE	ug/l	NA	0.013 U	0.013 U		0.013 U				
4,4'-DDT	ug/l	NA	0.019 U	0.019 U		0.019 U				
Diallate	ug/i	NA	10 U							
Dieldrin	ug/l	0.002 ACAL	0.012 U	0.012 U		0.012 U				
Dinoseb	ug/l	7	1.9 U	0.77 U		0.77 U	0.77 U	0.77 U	0.79 U	1.9 U
Endosulfan-l	ug/l	NA	0.011 U	0.011 U		0.011 U				
Endosulfan-II	ug/l	NA	0.037 U	0.037 U		0.037 U				
Endosulfan sulfate	ug/l	NA	0.025 U	0.025 U		0.025 U				
Endrin	ug/i	2	0.011 U	0.011 U	***	0.011 U				
Endrin aldehyde	ug/l	NA	0.016 U	0.016 U		0.016 U				
Heptachlor	ug/l	0.01	0.015 U	0.015 U	***	0.015 U				
Heptachlor epoxide	ug/l	0.01	0.012 U	0.012 U	***	0.012 U				
Isodrin	ug/l	NA	20 U							
Kepone	ug/l	NA	200 U	ໍ 200 U	200 U	200 U				
Methoxychlor	ug/l	40	0.031 U	0.031 U		0.031 U				
Aroclor 1016	ug/l	0.5(total)	0.19 U	0.19 U	***	0.19 U				
Aroclor 1221	ug/l	0.5(total)	0.063 U	0.063 U		0.063 U				
Aroclor 1232	ug/l	0.5(total)	0.13 U	0.13 U	***	0.13 U				
Aroclor 1242	ug/l	0.5(total)	0.21 U	0.21 U		0.21 U				

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Pesticides and Herbicic	des									
Well Identifier			HAR-27	HAR-28	HAR-33	RD-05A	RD-05B	RD-05C	RD-08	RD-45B
FLUTe Sample Port			J		***					***
Sample Type			Primary							
Sampled Date			11/06/02	11/20/02	11/21/02	11/19/02	11/19/02	11/19/02	11/20/02	11/13/02
Compound	Units	MCL								
Aroclor 1248	ug/l	0.5(total)	0.2 U	0.2 U		0.2 U				
Aroclor 1254	ug/l	0.5(total)	0.1 U	0.1 U	***	0.1 U				
Aroclor 1260	ug/l	0.5(total)	0.11 U	0.11 U		0.11 U				
Toxaphene	ug/l	3	1.3 U	1.3 U		1.3 U				
2,4-D	ug/l	70	0.54 U	0.25 U		0.25 U	0.25 U	0.25 U	0.25 U	0.54 U
2,4,5-T	ug/l	NA	0.78 U	0.13 U		0.13 U	0.13 U	0.13 U	0.13 U	0.78 U
2,4,5-TP (Silvex)	ug/l	50	0.55 U	0.14 U		0.14 U	0.14 U	0.14 U	0.15 U	0.55 U
2,3,7,8-TCDD TEQ	pg/l	0.03	11.6 U	6 U		1.8 U	2.1 U	1.7 U	10.9 U	3.0 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Pesticides and Herbicide	S	······································				· · · · · ·				
Well Identifier			RD-58A	RD-58B	RD-58C	HAR-07	HAR-08	HAR-16	HAR-17	HAR-21
FLUTe Sample Port						***		Comp		
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/21/02	11/19/02	11/19/02	05/14/02	11/20/02	11/06/02	05/07/02	11/06/02
Compound	Units	MCL								
Aldrin	ug/l	0.002 ACAL	0.012 U	0.012 U	0.012 U	0.0084 U	0.012 U		0.0084 U	0.012 U
alpha-BHC	ug/l	0.015 ACAL	0.017 U	0.017 U	0.017 U	0.011 U	0.017 U		0.011 U	0.017 U
beta-BHC	ug/l	0.025 ACAL	0.036 U	0.036 U	0.036 U	0.026 U	0.036 U		0.026 U	0.036 U
delta-BHC	ug/l	NA	0.015 U	0.015 U	0.015 U	0.0096 U	0.015 U		0.0096 U	0.015 U
Gamma-BHC (Lindane)	ug/l	0.2	0.015 U	0.015 U	0.015 U	0.016 U	0.015 U		0.016 U	0.015 U
Chlordane	ug/i	0.1	0.057 บ	0.057 U	0.057 U	0.67 U	0.057 U		0.67 U	0.057 U
Chlorobenzilate	ug/l	NA	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U
4,4'-DDD	ug/l	NA	0.013 U	0.013 U	0.013 U	0.0065 U	0.013 U		0.0065 U	0.013 U
4,4'-DDE	ug/l	NA	0.013 U	0.013 U	0.013 U	0.0052 U	0.013 U		0.0052 U	0.013 U
4,4'-DDT	ug/l	NA	0.019 U	0.019 U	0.019 U	0.0081 U	0.019 U	***	0.0081 U	0.019 U
Diallate	ug/l	NA	10 U	10 U	10 U	9.5 U	10 U	10 U	10 U	10 U
Dieldrin	ug/l	0.002 ACAL	0.012 U	0.012 U	0.012 U	0.0099 U	0.012 U		0.0099 U	0.012 U
Dinoseb	ug/l	7	0.79 U	0.77 U	0.76 U	1.9 U	0.79 U		1.9 U	1.9 U
Endosulfan-l	ug/l	NA	0.011 U	0.011 U	0.011 U	0.0069 U	0.011 U		0.0069 U	0.011 U
Endosulfan-II	ug/l	NA	0.037 U	0.037 U	0.037 U	0.0064 U	0.037 U		0.0064 U	0.037 U
Endosulfan sulfate	ug/l	NA	0.025 U	0.025 U	0.025 U	0.021 U	0.025 U		0.021 U	0.025 U
Endrin	ug/l	2	0.011 U	0.011 U	0.011 U	0.0067 U	0.011 U		0.0067 U	0.011 U
Endrin aldehyde	ug/l	NA	0.016 U	0.016 U	0.016 U	0.028 U	0.016 U		0.028 U	0.016 U
Heptachlor	ug/l	0.01	0.015 U	0.015 U	0.015 U	0.05 U	0.015 U		0.05 Ų	0.015 U
Heptachlor epoxide	ug/l	0.01	0.012 U	0.012 U	0.012 U	0.005 U	0.012 U	***	0.005 U	0.012 U
Isodrin	ug/l	NA	20 U	20 U	20 U	19 U	20 U	20 U	20 U	20 U
Kepone	ug/l	NA	200 U	200 U	200 U	190 U	200 U	` 200 U	200 U	200 U
Methoxychlor	ug/l	40	0.031 U	0.031 U	0.031 U	0.011 U	0.031 U		0.011 U	0.031 U
Aroclor 1016	ug/l	0.5(total)	0.19 U	0.19 U	0.19 U	0.22 U	0.19 U		0.22 U	0.19 U
Aroclor 1221	ug/l	0.5(total)	0.063 U	0.063 U	0.063 U	0.14 U	0.063 U		0.14 U	0.063 U
Aroclor 1232	ug/l	0.5(total)	0.13 U	0.13 U	0.13 U	0.13 U	0.13 U		0.13 U	0.13 U
Aroclor 1242	ug/l	0.5(total)	0.21 U	0.21 U	0.21 U	0.13 U	0.21 U	***	0.13 U	0.21 U

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Pesticides and Herbici	des									
Well Identifier			RD-58A	RD-58B	RD-58C	HAR-07	HAR-08	HAR-16	HAR-17	HAR-21
FLUTe Sample Port								Comp		
Sample Type			Primary							
Sampled Date			11/21/02	11/19/02	11/19/02	05/14/02	11/20/02	11/06/02	05/07/02	11/06/02
Compound	Units	MCL								
Aroclor 1248	ug/l	0.5(total)	0.2 U	0.2 U	0.2 U	0.13 U	0.2 U		0.13 U	0.2 U
Aroclor 1254	ug/l	0.5(total)	0.1 ป	0.1 U	0.1 U	0.31 U	0.1 U		0.31 U	0.1 U
Aroclor 1260	ug/l	0.5(total)	0.11 U	0.11 U	0.11 U	0.21 U	0.11 U		0.21 U	0.11 U
Toxaphene	ug/l	3	1.3 U		1.3 U	1.3 U				
2,4-D	ug/l	70	0.25 U	0.25 U	0.24 U	0.54 U	0.25 U		0.54 U	0.54 U
2,4,5-T	ug/l	NA	0.13 U	0.13 U	0.13 U	0.78 U	0.13 U		0.78 U	0.78 U
2,4,5-TP (Silvex)	ug/l	50	0.15 U	0.14 U	0.14 U	0.55 U	0.15 U		0.55 U	0.55 U
2,3,7,8-TCDD TEQ	pg/l	0.03	10.8 U	2.0 U	1.6 U	15.56 U	6.1 U	***	0.58 U	2.1 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Pesticides and Herbicide	S				
Well Identifier			HAR-26	WS-09	WS-09A
FLUTe Sample Port					
Sample Type			Primary	Primary	Primary
Sampled Date			11/20/02	11/21/02	11/20/02
Compound	Units	MCL			
Aldrin	ug/l	0.002 ACAL	0.012 U	0.012 U	0.012 U
alpha-BHC	ug/l	0.015 ACAL	0.017 U	0.017 U	0.017 U
beta-BHC	ug/l	0.025 ACAL	0.036 U	0.036 U	0.036 U
delta-BHC	ug/i	NA	0.015 U	0.015 U	0.015 U
Gamma-BHC (Lindane)	ug/l	0.2	0.015 U	0.015 U	0.015 U
Chlordane	ug/l	0.1	0.057 U	0.057 U	0.057 U
Chlorobenzilate	ug/l	NA	10 U	10 U	10 U
4,4'-DDD	ug/l	NA	0.013 U	0.013 U	0.013 U
4,4'-DDE	ug/l	NA	0.013 U	0.013 U	0.013 U
4,4'-DDT	ug/l	NA	0.019 U	0.019 U	0.019 U
Diallate	ug/l	NA	10 U	10 U	10 U
Dieldrin	ug/l	0.002 ACAL	0.012 U	0.012 U	0.012 U
Dinoseb	ug/l	7	0.76 U	0.77 U	0.77 U
Endosulfan-I	ug/l	NA	0.011 U	0.011 U	0.011 U
Endosulfan-II	ug/l	NA	0.037 U	0.037 U	0.037 U
Endosulfan sulfate	ug/l	NA	0.025 U	0.025 U	0.025 U
Endrin	ug/l	2	0.011 U	0.011 U	0.011 U
Endrin aldehyde	ug/l	NA	0.016 U	0.016 U	0.016 U
Heptachlor	ug/l	0.01	0.015 U	0.015 U	0.015 U
Heptachlor epoxide	ug/l	0.01	0.012 U	0.012 U	0.012 U
Isodrin	ug/l	NA	20 U	20 U	20 U
Kepone	ug/l	NA	200 U	200 U	200 U
Methoxychlor	ug/l	40	0.031 U	0.031 U	0.031 U
Aroclor 1016	ug/l	0.5(total)	0.19 U	0.19 U	0.19 U
Aroclor 1221	ug/l	0.5(total)	0.063 U	0.063 U	0.063 U
Aroclor 1232	ug/l	0.5(total)	0.13 U	0.13 U	0.13 U
Aroclor 1242	ug/l	0.5(total)	0.21 U	0.21 U	0.21 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Pesticides and Herbici	des				
Well Identifier			HAR-26	WS-09	WS-09A
FLUTe Sample Port					
Sample Type			Primary	Primary	Primary
Sampled Date			11/20/02	11/21/02	11/20/02
Compound	Units	MCL			
Aroclor 1248	ug/l	0.5(total)	0.2 U	0.2 U	0.2 U
Aroclor 1254	ug/l	0.5(total)	0.1 U	0.1 U	0.1 U
Aroclor 1260	ug/l	0.5(total)	0.11 U	0.11 U	0.11 U
Toxaphene	ug/l	3	1.3 U	1.3 U	1.3 U
2,4-D	ug/l	70	0.24 U	0.25 U	0.25 U
2,4,5-T	ug/l	NA	0.13 U	0.13 U	0.13 U
2,4,5-TP (Silvex)	ug/l	50	0.14 U	0.14 U	0.14 U
2,3,7,8-TCDD TEQ	pg/l	0.03	10.9 U	1.8 U	4.8 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RS-08	HAR-09	HAR-12	HAR-14	HAR-15	HAR-27	HAR-27
FLUTe					***			***	
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Dup
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02	05/07/02	11/06/02	11/06/02
Compound	Units	MCL							
1,1,1,2-Tetrachloroethane	ug/l	NA	0.4 U	0.08 U	0.08 U	0.08 U	0.08 U	0.4 U	0.4 U
1,1,1-Trichloroethane	ug/l	200	0.25 U	0.05 U	0.05 U	1.5	0.05 U	0.25 U	0.25 U
1,1,2,2-Tetrachloroethane	ug/l	1	0.85 U	0.17 U	0.17 U	0.17 U	0.17 U	0.85 U	0.85 U
1,1,2-Trichloroethane	ug/l	5	0.4 U	0.08 U	0.08 U	0.08 U	0.08 U	0.4 U	0.4 U
1,1-Dichloroethane	ug/l	5	0.2 U	0.04 U	0.04 U	0.04 U	0.04 U	0.2 U	0.2 U
1,1-Dichloroethene	ug/i	6	0.3 U	0.13 J	0.06 U	12	0.06 U	0.3 U	0.3 U
1,2,3-Trichloropropane	ug/l	0.005 ACAL	0.0068 U	***	0.0019 U	0.0068 U	0.0068 U	0.0019 U	0.0019 U
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.0069 U		0.0018 U	0.0069 U	0.0069 U	0.0018 U	
1,2-Dibromoethane	ug/l	0.05	0.2 U	0.04 U	0.0021 U	0.04 U	0.04 U	0.0021 U	0.2 U
1,2-Dichloroethane	ug/l	0.5	0.4 U	0.08 U	0.08 U	U 80.0	U 80.0	0.4 U	0.4 U
1,2-Dichloropropane	ug/l	5	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
1,4-Dioxane	ug/l	3 ACAL	0.32 U	3.71 U	0.32 U	115	0.32 U	2.99 U	
2-Butanone	ug/l	NA	3.5 U	0.7 U	0.7 U	0.7 U	0.7 U	3.5 U	3.5 U
2-Hexanone	ug/l	NA	4.8 U	0.96 U	0.96 U	0.96 U	0.96 U	4.8 U	4.8 U
4-Methyl-2-pentanone	ug/l	120 ACAL	5.4 U	1.1 U	1.1 U	1.1 U	1.1 U	5.4 U	5.4 U
Acetone	ug/l	NA	9 U	1.8 U	2.1 J	1.8 U	3.1 J	9 U	9 U
Acetonitrile	ug/l	NA	96 U	19 U	19 U	19 U	19 U	96 U	96 U
Acrolein	ug/l	NA	9.2 U	1.8 U	1.8 U	1.8 U	1.8 U	9.2 U	9.2 U
Acrylonitrile	ug/l	NA	5.6 U	1.1 U	1.1 U	1.1 U	1.1 U	5.6 U	5.6 U
Allyl Chloride	ug/l	NA	4.9 U	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U	4.9 U
Benzene	ug/l	1	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.25 U	0.25 U
Bromodichloromethane	ug/l	NA	0.25 U	0.05 U	0.05 U	0.05 U	0.05 U	0.25 U	0.25 U
Bromoform	ug/l	NA	0.55 U	0.11 U	0.11 U	0.11 U	0.11∙U	0.55 U	0.55 U
Bromomethane	ug/l	NA	0.95 U	0.19 U	0.19 U	0.19 U	0.19 U	0.95 U	0.95 U
Carbon disulfide	ug/l	160 ACAL	6.8 U	1.4 U,J	1.4 U	1.4 U	. 1.4 U	6.8 U	6.8 U
Carbon tetrachloride	ug/l	0.5	0.3 U	0.06 U	0.06 U	2.3	0.06 U	0.3 U	0.3 U
Chlorobenzene	ug/l	70	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
Chloroethane	ug/l	NA	0.55 U	0.11 U	0.11 U	0.11 U	0.11 U	0.55 U	0.55 U
Chloroform	ug/l	NA	0.35 U	0.07 U	0.07 U	3.2	0.07 U	0.35 U	0.35 U

See last page of Table 11 for footnotes and explanations.

Haley & Aldrich

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TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Volatile Organic Compounds Well Identifier	······································		RS-08	HAR-09	HAR-12	HAR-14	HAR-15	HAR-27	HAR-27
FLUTe				***					
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Dup
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02	05/07/02	11/06/02	11/06/02
Compound	Units	MCL.							
Chloromethane	ug/l	NA	0.7 U	0.14 U	0.15 J	0.14 U	0.14 U	0.7 U	0.7 U
Chloroprene	ug/l	NA	25 U	5 U	5 U	5 U	5 U	25 U	25 U
cis-1,2-Dichloroethene	ug/l	6	83	110	0.24 J	0.18 J	0.09 U	12	12
cis-1,3-Dichloropropene	ug/l	0.5(total)	0.4 U	0.08 U	0.08 U	0.08 U	0.08 U	0.4 U	0.4 U
Dibromochloromethane	ug/l	NA	0.3 U	0.06 U	0.06 U	0.06 U	0.06 U	0.3 U	0.3 U
Dibromomethane	ug/l	NA	0.45 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U	0.45 U
Dichlorodifluoromethane	ug/l	1000 ACAL	0.45 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U	0.45 U
Ethyl methacrylate	ug/l	NA	8 U	1.6 U	1.6 U	1.6 U	1.6 U	10 U	8 U
Ethylbenzene	ug/l	700	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.5 U	0.5 U
odomethane	ug/l	NA	4 U	0.8 U	0.8 U	0.8 U	0.8 U	4 U	4 U
Isobutanol	ug/l	NA	100 U	20 U	20 U	20 U	20 U	100 U	100 U
m,p-Xylenes	ug/l	1750(total)	J1 U	0.21 U	0.21 U	0.21 U	0.21 U	1 U	1 U
Methacrylonitrile	ug/l	NA	8.7 U	1.7 U	1.7 U	1.7 U	1.7 U	8.7 U	8.7 U
Methyl methacrylate	ug/l	NA	8 U	1.6 U	1.6 U	1.6 U	1.6 U	8 U	8 U
Methylene chloride	ug/l	5	2.1 J	0.06 U	0.06 U	0.086 J	0.083 J	0.3 U	0.3 U
o-Xylene	ug/l	1750(total)	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
Propionitrile	ug/l	NA	74 U	15 U	15 U	15 U	15 U	74 U	74 U
Styrene	ug/l	100	0.45 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U	0.45 U
Tetrachloroethene	ug/l	5	0.4 U	0.08 U	U 80.0	0.08 U	0.08 U	0.4 U	0.4 U
Toluene	ug/l	150	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
trans-1,2-Dichloroethene	ug/l	10	9.6	9.6	0.09 U	0.09 U	0.09 U	5.3	5.1
trans-1,3-Dichloropropene	ug/l	0.5(total)	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
Trans-1,4-Dichloro-2-butene	ug/l	NA	8.4 U	1.7 U	1.7 U	1.7 U	1.7 U∙	8.4 U	8.4 U
Trichloroethene	ug/l	5	0.33 J	2.1	0.22 J	5.3	0.06 U	0.37 J	0.46 J
Trichlorofluoromethane	ug/i	150	0.35 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U	0.35 U
Vinyl acetate	ug/l	NA	8.2 U	1.6 U	1.6 U	1.6 U	1.6 U	8.2 U	8.2 U
Vinyl chloride	ug/l	0.5	4.2 J	2.1	0.06 U	0.06 U	0.06 U	1.7 J	1.5 J

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-28	HAR-32	HAR-33	RD-05A	RD-05B	RD-05C	RD-08
FLUTe]						
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/20/02	11/21/02	11/21/02	11/19/02	11/19/02	11/19/02	11/20/02
Compound	Units	MCL							
1,1,1,2-Tetrachloroethane	ug/l	NA	0.08 U	2 U	0.08 U	0.08 U	0.08 U	0.08 U	0.4 U,J
1,1,1-Trichloroethane	ug/l	200	0.05 U	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.25 U,J
1,1,2,2-Tetrachloroethane	ug/l	1	0.17 U	4.2 U	0.17 U	0.17 U	0.17 U	0.17 U	0.85 U,J
1,1,2-Trichloroethane	ug/l	5	0.08 U	2 U	0.08 U	0.08 U	0.08 U	0.08 U	0.4 U,J
1,1-Dichloroethane	ug/l	5	0.04 U	4.1 J	0.04 U	0.04 U	0.04 U	0.04 U	1.8 J
1,1-Dichloroethene	ug/l	6	0.06 U	2.7 J	0.06 U	0.06 U	0.06 U	0.06 ป	0.3 U,J
1,2,3-Trichloropropane	ug/l	0.005 ACAL	0.0019 U	0.0019 U	0.0019 U	U,U 9100.0	0.0019 U,J	0.0019 U,J	0.0019 U
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.0018 U	0.0018 U	0.0018 U	0.0018 U	0.0018 U	0.0018 U	0.0018 U
1,2-Dibromoethane	ug/l	0.05	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.0021 U
1,2-Dichloroethane	ug/l	0.5	0.08 U	2 U	0.08 U	0.08 U	0.08 U	0.08 U	110 J
1,2-Dichloropropane	ug/l	5	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
1,4-Dioxane	ug/l	3 ACAL	0.32 U	0.32 U	0.32 U	0.32 U,J	0.32 U,J	0.32 U,J	6.85
2-Butanone	ug/l	NA	0.7 U	18 U	0.7 U	0.7 U	0.7 U	0.7 U	3.5 U,J
2-Hexanone	ug/l	NA	0.96 U	24 U	0.96 U	0.96 U	0.96 U	0.96 U	4.8 U,J
4-Methyl-2-pentanone	ug/l	120 ACAL	1.1 U	27 U	1.1 U	1.1 U	1.1 U	1.1 U	5.4 U,J
Acetone	ug/i	NA	1.8 U	45 U	1.8 U	1.8 U	1.8 U	1.8 U	9 U,J
Acetonitrile	ug/l	NA	19 U	480 U	19 U	19 U	19 U	19 U	96 U,J
Acrolein	ug/l	NA	1.8 U	46 U	1.8 U	1.8 U	1.8 U	1.8 U	9.2 U,J
Acrylonitrile	ug/l	NA	1.1 U	28 U	1.1 U	1.1 U	1.1 U	1.1 U	5.6 U,J
Allyi Chloride	ug/l	NA	0.98 U	24 U	0.98 U	0.98 U	0.98 U	0.98 U	4.9 U,J
Benzene	ug/l	1	0.05 U	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.25 U,J
Bromodichloromethane	ug/l	NA	0.05 U	1.2 U	0.05 U	0.05 U	0.05 U	0.05 U	0.25 U,J
Bromoform	ug/l	NA	0.11 U	2.8 U	0.11 U	0.11 U	0.11.U	0.11 U	0.55 U,J
Bromomethane	ug/l	NA	0.19 U	4.8 U	0.19 U	0.19 U	0.19 U	0.19 U	0.95 U,J
Carbon disulfide	ug/l	160 ACAL	1.4 U	34 U	1.4 U	1.4 U	1.4 U	1.4 U	6.8 U,J
Carbon tetrachloride	ug/l	0.5	0.06 U	1.5 U	0.06 U	0.06 U	0.06 U	0.06 U	0.3 U,J
Chlorobenzene	ug/l	70	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
Chloroethane	ug/l	NA	0.11 U	2.8 U	0.11 U	0.11 U	0.11 U	0.11 U	0.55 U,J
Chloroform	ug/i	NA	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J

See last page of Table 11 for footnotes and explanations. Haley & Aldrich

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Volatile Organic Compounds					***************************************				
Well Identifier			HAR-28	HAR-32	HAR-33	RD-05A	RD-05B	RD-05C	RD-08
FLUTe									
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/20/02	11/21/02	11/21/02	11/19/02	11/19/02	11/19/02	11/20/02
Compound	Units	MCL							
Chloromethane	ug/l	NA	0.14 U	3.5 U	0.14 U	0.14 J	0.16 J	0.14 U	0.7 U,J
Chloroprene	ug/l	NA	5 U	120 U	5 U	5 U	5 U	5 U	25 U,J
cis-1,2-Dichloroethene	ug/l	6	1.5	63	0.19 J	0.09 U	0.09 U	0.09 U	0.45 U,J
cis-1,3-Dichloropropene	ug/l	0.5(total)	0.08 U	2 U	0.08 U	0.08 U	U 80.0	0.08 U	0.4 U,J
Dibromochloromethane	ug/l	NA	0.06 U	1.5 U	0.06 U	0.06 ป	0.06 U	0.06 U	L,U 8.0
Dibromomethane	ug/l	NA	0.09 U	2.2 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U,J
Dichlorodifluoromethane	ug/l	1000 ACAL	0.09 U	2.2 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U,J
Ethyl methacrylate	ug/l	NA	1.6 U	40 U	1.6 U	1.6 U	1.6 U	1.6 U	10 U,J
Ethylbenzene	ug/l	700	0.1 U	2.5 U	0.1 U	0.1 ป	0.1 U	0.1 U	0.5 U,J
lodomethane	ug/l	NA	0.8 U	20 U	0.8 U	0.8 U	0.8 U	0.8 U	4 U,J
Isobutanol	ug/l	NA	20 U	500 U	20 U	20 U	20 U	20 U	100 U,J
m,p-Xylenes	ug/l	1750(total)	0.21 U	5.2 U	0.21 U	0.21 U	0,21 U	0.21 U	1 U,J
Methacrylonitrile	ug/l	NA	1.7 U	44 U	1.7 U	1.7 U	1.7 U	1.7 U	8.7 U,J
Methyl methacrylate	ug/l	NA	1.6 U	40 U	1.6 U	1.6 U	1.6 U	1.6 U	8 U,J
Methylene chloride	ug/i	5	0.06 U	4 U	0.06 U	0.06 U	0.06 U	0.06 U	1.6 U,J
o-Xylene	ug/l	1750(total)	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
Propionitrile	ug/l	NA	15 U	370 U	15 U	15 U	15 U	15 U	74 U,J
Styrene	ug/l	100	0.09 U	2.2 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U,J
Tetrachloroethene	ug/l	5	0.08 U	2 U	0.08 U	0.08 บ	0.08 U	0.08 U	0.4 U,J
Toluene	ug/l	150	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
trans-1,2-Dichloroethene	ug/l	10	0.09 U	2.2 U	0.09 U	0.09 U	0.09 U	0.09 U	0.45 U,J
trans-1,3-Dichloropropene	ug/l	0.5(total)	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
Trans-1,4-Dichloro-2-butene	ug/l	NA	1.7 U	42 U	1.7 U	1.7 U	1.7 U ·	1.7 U	8.4 U,J
Trichloroethene	ug/l	5	0.75 J	940	0.98 J	0.06 U	0.06 U	0.06 U	0.79 J
Trichlorofluoromethane	ug/l	150	0.07 U	1.8 U	0.07 U	0.07 U	0.07 U	0.07 U	0.35 U,J
Vinyl acetate	ug/l	NA	1.6 U	41 U	1.6 U	1.6 U	1.6 U	1.6 U	8.2 U,J
Vinyl chloride	ug/i	0.5	0.06 U	1.5 U	0.06 U	0.06 U	0.06 U	0.06 U	0.3 U,J

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Volatile Organic Compounds Well Identifier			RD-45B	RD-58A	RD-58B	RD-58C	HAR-01	HAR-07	HAR-08
			KD-45B	KD-36A	KD-20B	KD-58C		HAR-U/	
FLUTe			Drive en :	Deimone		Deimon.	Comp	Delman.	 Dai
Sample Type			Primary 11/13/02	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date	Units	MCL	11/13/02	11/21/02	11/19/02	11/19/02	11/04/02	05/14/02	11/20/02
Compound 1,1,1,2-Tetrachloroethane	ug/l	NA	0.08 U	0.8 U	0.08 U	0.08 U	0.4 U,J	0.08 U	0.08 U
	_	200	0.05 U	0.6 U 0.5 U	0.05 U	0.08 U	-	0.08 U	
1,1,1-Trichloroethane	ug/l	200	0.05 U 0.17 U	0.5 U 1.7 U	0.05 U 0.17 U	0.05 U 0.17 U	0.25 U,J		0.05 U
1,1,2,2-Tetrachloroethane	ug/l	•	0.17 U 0.08 U	1.7 U 0.8 U			0.85 U,J	0.17 U	0.17 U
1,1,2-Trichloroethane	ug/l	5	1	0.8 U 0.4 U	0.08 U	0.08 U	0.4 U,J	0.08 U	0.08 U
1,1-Dichloroethane	ug/l	5	0.04 U		0.04 U	0.04 U	0.59 J	0.27 J	0.04 U
1,1-Dichloroethene	ug/i	6	0.13 J	0.6 U	0.06 U	0.06 U	0.44 J	12	0.06 U
1,2,3-Trichloropropane	ug/l	0.005 ACAL	0.0019 U	0.0019 U	0.0019 U	0.0019 U,J		0.0068 U	0.0019 U
1,2-Dibromo-3-chloropropane	ug/l	0.2	0.0018 U	0.0018 U	0.0018 U	0.0018 U	0.011.1	0.0069 U	0.0018 U
1,2-Dibromoethane	ug/i	0.05	0.0021 U	0.0021 U	0.0021 U	0.0021 U	0.2 U,J	0.04 U	0.0021 U
1,2-Dichloroethane	ug/l	0.5	0.08 U	0.8 U	0.08 U	0.08 U	0.4 U,J	0.08 U	0.08 U
1,2-Dichloropropane	ug/l	5	0.07 U	0.7 U	0.07 U	0.07 U	0.44 J	0.07 U	0.07 U
1,4-Dioxane	ug/l	3 ACAL	3.07 U	0.32 U	4.16 J	0.32 U,J		0.32 U	0.32 U
2-Butanone	ug/l	NA	0.7 U	7 U	0.7 U	0.7 U	3.5 U,J	0.7 U	0.7 U
2-Hexanone	ug/l	NA	0.96 U,J	9.6 U	0.96 U	0.96 U	4.8 U,J	0.96 U	0.96 U
4-Methyl-2-pentanone	ug/l	120 ACAL	1.1 U	11 U	1.1 U	1.1 U	5.4 U,J	1.1 U	1.1 U
Acetone	ug/l	NA	1.8 U	18 U	1.8 U	1.8 U	9 U,J	1.8 U	1.8 U
Acetonitrile	ug/l	NA	19 U	190 U	19 U	19 U	96 U,J	19 U	19 U
Acrolein	ug/l	NA	1.8 U	18 U	1.8 U	1.8 U	9.2 U,J	1.8 U	1.8 U
Acrylonitrile	ug/l	NA	1.1 U	11 U	1.1 U	1.1 U	5.6 U,J	1.1 U	1.1 U
Allyl Chloride	ug/l	NA	0.98 U	9.8 U	0.98 U	0.98 U	4.9 U,J	0.98 U	0.98 U
Benzene	ug/l	1	0.05 U	0.5 U	0.05 U	0.05 U	0.68 J	0.074 J	0.05 U
Bromodichloromethane	ug/l	NA	0.05 U	0.5 U	0.05 U	0.05 U	0.39 J	0.05 U	0.05 U
Bromoform	ug/l	NA	0.11 U	1.1 U	0.11 U	0.11 U	0.55∙U,J	0.11 U	0.11 U
Bromomethane	ug/l	NA	0.19 U	1.9 U	0.19 U	0.19 U	0.95 U,J	0.19 U	0.19 U
Carbon disulfide	ug/l	160 ACAL	1.4 U,J	14 U	1.4 U	1.4 U	6.8 U,J	1.4 U	1.4 U
Carbon tetrachloride	ug/l	0.5	0.06 U	0.6 U	0.06 U	0.06 U	0.3 U,J	0.06 U	0.06 U
Chlorobenzene	ug/l	70	0.07 U	0.7 U	0.07 U	0.07 U	0.44 J	0.07 U	0.07 U
Chloroethane	ug/l	NA	0.11 U	1.1 U	0.11 U	0.11 U	0.55 U,J	0.11 U	0.11 U
Chloroform	ug/l	NA	0.07 U	0.7 U	0.07 U	0.07 U	0.94 J	0.07 U	0.07 U

See last page of Table 11 for footnotes and explanations.

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TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Volatile Organic Compounds Well Identifier			RD-45B	RD-58A	RD-58B	RD-58C	HAR-01	HAR-07	HAR-08
FLUTe							Comp	***	
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/13/02	11/21/02	11/19/02	11/19/02	11/04/02	05/14/02	11/20/02
Compound	Units	MCL	11/10/02	11/21/02	11/10/02	11/15/02	1110-102	00/14/02	11/20/02
Chloromethane	ug/l	NA	0.14 U	1.4 U	0.15 J	0.14 U	0.76 J	0.14 U	0.14 U
Chloroprene	ug/l	NA	5 U	50 U	5 U	5 U	25 U,J	5 U	5 U
cis-1,2-Dichloroethene	ug/l	6	22	1.9 J	0.09 U	0.9 J	32 J	2500 HTV,D	16
cis-1,3-Dichloropropene	ug/l	0.5(total)	0.08 U	0.8 U	0.08 U	0.08 U	0.4 U,J	0.08 U	0.08 U
Dibromochloromethane	ug/l	NA	0.06 U	0.6 U	0.06 U	0.06 U	0.3 U,J	0.06 U	0.06 U
Dibromomethane	ug/i	NA	0.09 U	0.9 U	0.09 U	0.09 U	0.45 U,J	0.09 U	0.09 U
Dichlorodifluoromethane	ug/l	1000 ACAL	0.09 U	0.9 U	0.09 U	0.09 U	0.45 U,J	0.09 U	0.09 U
Ethyl methacrylate	ug/l	NA	1.6 U	10 U	1.6 U	1.6 U	8 U,J	1.6 U	1.6 U
Ethylbenzene	ug/l	700	0.1 U	1 U	0.1 U	0.1 U	0.5 U,J	0.1 U	0.1 U
lodomethane	ug/l	NA	0.8 U	8 U	0.8 U	0.8 U	4 U,J	0.8 U	0.8 U
Isobutanol	ug/l	NA	20 U	200 U	20 U	20 U	100 U,J	20 U	20 U
m,p-Xylenes	ug/l	1750(total)	0.21 U	2.1 U	0.21 U	0.21 U	1 U,J	0.21 U	0.21 U
Methacrylonitrile	ug/l	NA	1.7 U	17 U	1.7 U	1.7 U	8.7 U,J	1.7 U	1.7 U
Methyl methacrylate	ug/i ug/i	NA	1.6 U	16 U	1.6 U	1.6 U	8 U,J	1.6 U	1.7 U
Methylene chloride	ug/l	5	0.06 U	1.5 U	0.06 U	0.06 U	0.71 U,J	0.06 U,J	0.06 U
o-Xylene	ug/l	1750(total)	0.00 U	0.7 U	0.00 U	0.07 U	0.46 J	0.07 U	0.00 U
Propionitrile	ug/i	NA	15 U	150 U	15 U	15 U	74 U,J	15 U	15 U
Styrene	ug/i ug/l	100	0.09 U	0.9 U	0.09 U	0.09 U	0.45 U,J	0.09 U	0.09 U
Tetrachloroethene	ug/i	5	0.08 U	0.8 U	0.03 U	0.08 U	0.43 J,0	0.21 J	0.03 U
Toluene	ug/l	150	0.00 U	0.7 U	0.03 U	0.07 U	0.49 J	0.18 J	0.07 U
trans-1,2-Dichloroethene	-	10	2.3	0.7 U	0.07 U	0.07 U	0.49 J 0.63 J	130 HTV,D	1.3
trans-1,3-Dichloropropene	ug/l ug/l	0.5(total)	0.07 U	0.9 U 0.7 U	0.09 U 0.07 U	0.09 U	0.03 J 0.35 U,J	0.07 U	0.07 U
	_	NA	1.7 U	0.7 U	1.7 U	1.7 U	8.4 U,J	1.7 U	1.7 U
Trans-1,4-Dichloro-2-butene	ug/l	NA 5	2.6	200	0.06 U	0.06 U	0.4 ب.) 170	.3400 HTV,D	1.7 0
Trichloroethene	ug/l		0.07 U	200 0.7 U	0.06 U 0.07 U	0.06 U 0.07 U	0.35 U,J	0.07 U	0.07 U
Trichlorofluoromethane	ug/l	150 NA	1	0.7 U 16 U	0.07 U 1.6 U	1.6 U	0.35 U,J 8.2 U,J	1.6 U	1.6 U
Vinyl acetate Vinyl chloride	ug/l ug/l	NA 0.5	1.6 U,J 0.093 J	0.6 U	0.06 U	1.6	8.2 U,J 0.37 J	1.6 U 120 HTV,D	3.9

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-16	HAR-17	HAR-21	HAR-26	WS-09	WS-09A
FLUTe			Comp	***	to trop		Til denig	
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/06/02	05/07/02	11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL						
1,1,1,2-Tetrachloroethane	ug/l	NA	20 U	0.16 U	0.4 U	0.08 U	20 U	0.2 U
1,1,1-Trichloroethane	ug/l	200	12 U	0.1 U	0.25 U	0.05 U	12 U	0.12 U
1,1,2,2-Tetrachloroethane	ug/l	1	42 U	0.34 U	0.85 U	0.17 U	42 U	0.42 U
1,1,2-Trichloroethane	ug/l	5	20 U	0.16 U	0.4 U	U 80.0	20 U	0.2 U
1,1-Dichloroethane	ug/l	5	10 U	0.08 U	0.2 U	0.04 U	10 U	0.1 U
1,1-Dichloroethene	ug/i	6	32 J	1.3	0.3 U	0.06 U	15 U	0.15 U
1,2,3-Trichloropropane	ug/l	0.005 ACAL	[0.0068 U	0.0019 U	0.0019 U	0.0019 U	0.0019 U
1,2-Dibromo-3-chloropropane	ug/l	0.2		0.0069 U	0.0018 U	0.0018 U	0.0018 U	0.0018 U
1,2-Dibromoethane	ug/l	0.05	10 U	U 80.0	0.0021 U	0.0021 U	0.0021 U	0.0021 U
1,2-Dichloroethane	ug/l	0.5	20 U	0.16 U	0.4 U	U 80.0	20 U	0.2 U
1,2-Dichloropropane	ug/l	5	18 U	0.14 U	0.35 U	0.07 U	18 U	0.18 U
1,4-Dioxane	ug/l	3 ACAL	0.32 U,J	0.32 U	3.23	0.32 U	0.32 U	0.32 U
2-Butanone	ug/l	NA	180 U	1.4 U	3.5 U	0.7 U	180 U	1.8 U
2-Hexanone	ug/l	NA	240 U	1.9 U	4.8 U	0.96 U	240 U	2.4 U
4-Methyl-2-pentanone	ug/l	120 ACAL	270 U	2.2 U	5.4 U	1.1 U	270 U	2.7 U
Acetone	ug/l	NA	450 U	3.6 U	9 U	2.1 U	450 U	4.5 U
Acetonitrile	ug/l	NA	4800 U	38 U	96 U	19 U	4800 U	48 U
Acrolein	ug/l	NA	460 U	3.7 U	9.2 U	1.8 U	460 U	4.6 U
Acrylonitrile	ug/l	NA	280 U	2.2 U	5.6 U	1.1 U	280 U	2.8 U
Allyl Chloride	ug/l	NA	240 U	2 U	4.9 U	0.98 U	240 U	2.4 U
Benzene	ug/l	1	12 U	0.1 U	0.25 U	0.05 U	12 U	0.12 U
Bromodichloromethane	ug/l	NA	12 U	0.1 U	0.25 U	0.05 U	12 U	0.12 U
Bromoform	ug/i	NA	28 U	0.22 U	0.55 U	0.11 U	28 U	0.28 U
Bromomethane	ug/l	NA	48 U	0.38 U	0.95 U	0.19 U	48 U	0.48 U
Carbon disulfide	ug/l	160 ACAL	340 U	2.7 U	6.8 U	1.4 U	340 U	3.4 U
Carbon tetrachloride	ug/l	0.5	15 U	0.12 U	0.3 U	0.06 U	15 U	0.15 U
Chlorobenzene	ug/l	70	18 U	0.14 U	0.35 U	0.07 U	18 U	0.18 U
Chloroethane	ug/l	NA	28 U	0.22 U	0.55 U	0.11 U	28 U	0.28 U
Chloroform	ug/l	NA	18 U	0.26 J	0.35 U	0.07 U	18 U	0.18 U

See last page of Table 11 for footnotes and explanations.

Haley & Aldrich

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TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-16	HAR-17	HAR-21	HAR-26	WS-09	WS-09A
FLUTe			Comp	***	***		***	
Sample Type			Primary	Primary	Primary	Primary	Primary	Primary
Sampled Date			11/06/02	05/07/02	11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL						
Chloromethane	ug/l	NA	35 U	0.28 U	0.7 U	0.27 J	35 U	0.35 U
Chloroprene	ug/l	NA	1200 U	9.8 U	25 U	5 U	1200 U	12 U
cis-1,2-Dichloroethene	ug/l	6	420	11	190	0.09 U	260	36
cis-1,3-Dichloropropene	ug/i	0.5(total)	20 U	0.16 U	0.4 U	0.08 U	20 U	0.2 U
Dibromochloromethane	ug/l	NA	15 U	0.12 U	0.3 U	0.06 U	15 U	0.15 U
Dibromomethane	ug/l	NA	22 U	0.18 U	0.45 U	0.09 U	22 U	0.22 U
Dichlorodifluoromethane	ug/l	1000 ACAL	22 U	0.18 U	0.45 U	0.09 U	22 U	0.22 U
Ethyl methacrylate	ug/l	NA	10 U	10 U	10 U	1.6 U	10 U	10 U
Ethylbenzene	ug/l	700	25 U	0.2 U	0.5 U	0.1 U	25 U	0.25 U
lodomethane	ug/l	NA	200 U	1.6 U	4 U	0.8 U	200 U	2 U
Isobutanol	ug/l	NA	5000 U	40 U	100 U	20 U	5000 U	50 U
m,p-Xylenes	ug/l	1750(total)	52 U	0.42 U	1 U	0.21 U	52 U	0.52 U
Methacrylonitrile	ug/l	NA	440 U	3.5 U	8.7 U	1.7 U	440 U	4.4 U
Methyl methacrylate	ug/i	NA	400 U	3.2 U	8 U	1.6 U	400 U	4 U
Methylene chloride	ug/l	5	16 U	0.62 U	0.3 U	0.06 U	180 U	0.15 U
o-Xylene	ug/l	1750(total)	18 U	0.14 U	0.35 U	0.07 U	18 U	0.18 U
Propionitrile Propionitrile	ug/l	NA	3700 U	29 U	74 U	15 U	3700 U	37 U
Styrene	ug/l	100	22 U	0.18 U	0.45 U	0.09 U	22 U	0.22 U
Tetrachloroethene	ug/l	5	20 U	0.16 U	0.4 U	0.08 U	20 U	0.2 U
Toluene	ug/l	150	18 U	0.14 U	0.35 U	0.07 U	18 U	0.18 U
trans-1,2-Dichloroethene	ug/l	10	22 U	0.59 J	19	0.09 U	22 U	0.97 J
trans-1,3-Dichloropropene	ug/l	0.5(total)	18 U	0.14 U	0.35 U	0.07 U	18 U	0.18 U
Trans-1,4-Dichloro-2-butene	ug/l	NA	420 U	3.4 U	8.4 U	1.7 U	420 U ·	4.2 U
Trichloroethene	ug/l	5	8000	63	3.3 J	0.06 U	4700	65
Trichlorofluoromethane	ug/l	150	31 J	0.14 U	0.35 U	0.07 U	18 U	0.18 U
Vinyl acetate	ug/l	NA	410 U	3.3 U	8.2 U	1.6 U	410 U	4.1 U
Vinyl chloride	ug/l	0.5	15 U	0.12 U	56	0.06 U	15 U	0.15 ป

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RS-08	HAR-09	HAR-12	HAR-14
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02
Compound	Units	MCL				
1,2,4,5-Tetrachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	70	3.4 U	3.4 U	3.4 U	3.4 U
,2-Dichlorobenzene	ug/l	600	0.55 U	3.4 U	3.4 U	0.11 U
1,3,5-Trinitrobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/l	600 ACAL	0.65 U	3.1 U	3.1 U	0.13 U
,3-Dinitrobenzene	ug/i	NA	20 U	20 U	20 U 🔭	20 U
,4-Dichlorobenzene	ug/l	5	0.55 U	3.2 U	3.2 U	0.11 U
,4-Naphthoquinone	ug/l	NA	20 U	20 U	20 U	20 U
.4-Phenylenediamine	ug/l	NA	50 U	50 U	50 U	50 U
-Naphthylamine	ug/i	NA	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/l	NA	4 U	4 U	4 U	4 U
2,4,6-Trichlorophenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	ug/l	100 ACAL	6 U	6 U	6 U	6 U
,4-Dinitrophenol	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
,4-Dinitrotoluene	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
,6-Dichlorophenol	ug/l	NA	10 U.	10 U	10 U	10 U
,6-Dinitrotoluene	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
-Acetylaminofluorene	ug/l	NA	20 U	20 U	20 U	20 U
-Chloronaphthalene	ug/l	NA	3 U	3 U	3 U	3 U
-Chlorophenol	ug/l	NA	4.9 U	4.9 U	4.9 U	4.9 U
-Methylnaphthalene	ug/l	NA	3.5 U	3.5 U	3.5 U	3.5 U
-Methylphenol	ug/l	NA	5.3 U	5.3 U	5.3 U	5.3 U
-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
-Nitroaniline	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
-Nitrophenol	ug/i	NA	4.8 U	4.8 U	4.8 U	4.8 U
2-Picoline	ug/l	NA	10 U	10 U	10 U	10 U
,3'-Dichlorobenzidine	ug/l	NA	20 U	20 U	20 U	20 U
,3'-Dimethylbenzidine	ug/l	NA	10 U	10 U	10 U	10 U
-Methylcholanthrene	ug/l	NA	10 U	10 U	10 U	10 U
-Methylphenol	ug/l	NA	10 U	10 U	10 U	10 U
-Nitroaniline	ug/l	NA	4 U	4 U	4 U	4 U
-Aminobiphenyl	ug/l	NA	20 U	20 U	20 U	20 U
-Bromophenyl phenyl ether	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
-Chloro-3-methylphenol	ug/l	NA	4 U	4 U	4 U	4 U
-Chloroaniline	ug/l	NA	2.9 U	2.9 U	2.9 U	2.9 U
-Chiorophenyl phenyl ether	ug/l	NA ·	2.6 U	2.6 U	2.6 U	2.6 U
-methylphenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
-Nitroaniline	ug/l	NA	5 U	5 U	5 U	5 U
-Nitrophenol	ug/l	NA	1.7 U	1.7 U	1.7 U	1.7 U
-Nitroquinoline-1-oxide	ug/l	NA	50 U	50 U	50 U	50 U
,6-Dinitro-2-methylphenol	ug/l	NA	2.2 U	2.2 U	2.2 U	2.2 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RS-08	HAR-09	HAR-12	HAR-14
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02
Compound	Units	MCL				
5-Nitro-o-toluidine	ug/l	NA	10 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/l	NA	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	10 U	10 U	10 U	10 U
Aniline	ug/l	NA	5 U	5 U	5 U	5 U
Anthracene	ug/l	NA	0.8 U	0.8 U	0.8 U	U 8.0
Aramite	ug/l	NA	200 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				
Benzo(ghi)perylene	ug/l	NA	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA			***	
Benzyl Alcohol	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	4 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/l	NA	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.93 U	0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/l	NA	0.89 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/I	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	0.32 U	20 U	20 U .	0.32 U
Dimethyl phthalate	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
Diphenylamine	ug/l	NA	10 U	10 U	10 U	10 U
Disulfoton	ug/l	NA	0.15 U	0.14 U	0.15 U	0.14 U
Ethyl methanesulfonate	ug/l	NA	20 U	20 U	20 U	20 U
Famphur	ug/i	NA	200 U	200 U	200 U	200 U
Fluoranthene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
Fluorene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Hexachlorobenzene	ug/l	1	1.7 U	1.7 U	1.7 U	1.7 U
Hexachlorobutadiene	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Hexachlorocyclopentadiene	ug/l	50	1.4 U	1.4 R	1.4 U	1.4 U
Hexachloroethane	ug/l	NA	2.4 U	2.4 U	2.4 U	2.4 U
Hexachlorophene	ug/l	NA	200 U	200 U	200 U	200 U
Hexachloropropene	ug/l	NA	10 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
Isophorone	ug/l	NA	3.2 U	3.2 U	3.2 U	3.2 U
Isosafrole	ug/l	NA	10 U	10 U	10 U	10 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compounds	;			· · · · · · · · · · · · · · · · · · ·		
Well Identifier			RS-08	HAR-09	HAR-12	HAR-14
FLUTe]			
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/14/02	11/20/02	05/07/02
Compound	Units	MCL				
Methapyrilene	ug/l	NA	100 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.7 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	4.6	73	62	390
N-Nitrosodiphenylamine	ug/l	NA	2.8 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosomorpholine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/l	NA	40 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/l	NA	3.3 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	10 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	10 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Parathion-ethyl	ug/l	40 ACAL	0.15 U	0.15 U	0.15 U	0.14 U
Parathion-methyl	ug/l	2 ACAL	0.13 U	0.12 U	0.13 U	0.12 U
Pentachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	20 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 HTV,U	0.165 U	0.165 U
Phenacetin	ug/l	NA.	20 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	4 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	10 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.14 U	0.13 U	0.14 U	0.13 U
Pronamide	ug/l	NA	10 U	10 U	10 U	10 U
Pyrene	ug/l	NA	0.72 U	0.72 U	0.72 U	0.72 U
Pyridine	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
Safrole	ug/l	NA	10 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.45 U	0.44 U	0.46 U	0.44 U
Thionazin	ug/l	NA	20 U	20 U	20 U	20 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compou Well Identifier			HAR-15	HAR-27	HAR-28	HAR-33
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/06/02	11/20/02	11/21/02
Compound	Units	MCL				
1,2,4,5-Tetrachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	70	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	ug/l	600	0.11 U	3.4 U	3.4 U	3.4 U
1,3,5-Trinitrobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/l	600 ACAL	0.13 U	3.1 U	3.1 U	3.1 U
L3-Dinitrobenzene	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	ug/l	5	0.11 U	3.2 U	3.2 U	3.2 U
1,4-Naphthoquinone	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Phenylenediamine	ug/l	NA	50 U	50 ป	50 U	50 U
1-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/l	NA	4 U	4 U	4 U	4 U
2,4,6-Trichlorophenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	ug/l	100 ACAL	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/i	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dichlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
-Acetylaminofluorene	ug/l	NA	20 U	20 U	20 U	20 U
2-Chloronaphthalene	ug/l	NA	3 U	3 U	3 U	3 U
2-Chlorophenol	ug/l	NA	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	ug/l	NA	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	ug/l	NA	5.3 U	5.3 U	5.3 U	5.3 U
2-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2-Nitroaniline	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
2-Nitrophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2-Picoline	ug/l	NA	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/l	NA	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/l	NA	10 U	10 U	10 U	10 U
l-Methylcholanthrene	ug/l	NA	10 U	10 U	10 U .	10 U
3-Methylphenol	ug/l	NA	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/l	NA	4 U	4 U	4 U	4 U
l-Aminobiphenyl	ug/l	NA	20 U	20 U	20 U	20 U
-Bromophenyl phenyl ether	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
-Chloro-3-methylphenol	ug/l	NA	4 U	4 U	4 U	4 U
-Chloroaniline	ug/l	NA	2.9 U	2.9 U	2.9 U	2.9 U
-Chlorophenyl phenyl ether	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
-methylphenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
l-Nitroaniline	ug/l	NA	5 U	5 U	5 U	5 U
I-Nitrophenol	ug/l	NA	1.7 U	1.7 U	1.7 U	1.7 U
I-Nitroquinoline-1-oxide	ug/l	NA	50 U	50 U	50 U	50 U
,6-Dinitro-2-methylphenol	ug/l	NA	2.2 U	2.2 U	2.2 U	2.2 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-15	HAR-27	HAR-28	HAR-33
FLUTe			[
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/06/02	11/20/02	11/21/02
Compound	Units	MCL				
5-Nitro-o-toluidine	ug/l	NA	10 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/l	NA	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	10 U	10 U	10 U	10 U
Aniline	ug/l	NA	5 U	5 U	5 U .	. 5 U
Anthracene	ug/l	NA	0.8 U	0.8 U	0.8 Ü	0.8 U
Aramite	ug/l	NA	200 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				
Benzo(ghi)perylene	ug/l	NA	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA				
Benzyl Alcohol	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	4 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/l	NA	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.93 U	0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/l	NA	0.89 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/l	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	0.32 U	20 U	20 U	20 U
Dimethyl phthalate	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
Diphenylamine	ug/l	NA	10 U	10 U	10 U	10 U
Disulfoton	ug/l	NA	0.14 U	0.14 U	0.16 U	
Ethyl methanesulfonate	ug/l	NA	20 U	20 U	20 U	20 U
Famphur	ug/l	NA	200 U	200 U	200 U	200 U
Fluoranthene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
Fluorene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
-lexachlorobenzene	ug/l	1	1.7 U	1.7 U	1.7 U	1.7 U
Hexachlorobutadiene	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
lexachlorocyclopentadiene	ug/l	50	1.4 U	1.4 U,J	1.4 U	1.4 U
lexachloroethane	ug/l	NA	2.4 U	2.4 U	2.4 U	2.4 U
lexachlorophene	ug/l	NA	200 U	200 U	200 U	200 U
-lexachloropropene	ug/l	NA	10 U	10 U	10 U	10 U
ndeno(1,2,3-cd)pyrene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
sophorone	ug/l	NA	3.2 U	3.2 U	3.2 U	3.2 U
sosafrole	ug/i	NA	10 U	10 U	10 U	10 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-15	HAR-27	HAR-28	HAR-33
FLUTe]			
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/07/02	11/06/02	11/20/02	11/21/02
Compound	Units	MCL				
Methapyrilene	ug/l	NA	100 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.7 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	20 U	20 U	20 U	. 20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	2 U	0.5 U	76	0.5 U
N-Nitrosodiphenylamine	ug/l	NA	2.8 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosomorpholine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/l	NA	40 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/l	NA	3.3 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	10 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	10 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Parathion-ethyl	ug/l	40 ACAL	0.14 U	0.15 U	0.16 U	
Parathion-methyl	ug/l	2 ACAL	0.12 U	0.12 U	0.14 U	
Pentachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	20 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 U	0.165 U	0.165 U
Phenacetin	ug/l	NA	20 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	4 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	10 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.13 U	0.13 U	0.15 U	
Pronamide	ug/l	NA	10 U	10 U	10 U	10 U
Pyrene	ug/l	NA	0.72 U	0.72 U	0.72 U	0.72 U
Pyridine	ug/I	NA	2.1 U	2.1 U	2.1 U	2.1 U
Safrole	ug/l	NA	10 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.44 U	0.44 U	0.49 U	
Thionazin	ug/l	NA	20 U	20 U	20 U	20 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RD-05A	RD-05B	RD-05C	RD-08
FLUTe			 			
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/19/02	11/19/02	11/19/02	11/20/02
Compound	Units	MCL				
1,2,4,5-Tetrachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	70	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	ug/l	600	3.4 U	3.4 U	3.4 U	3.4 U
1,3,5-Trinitrobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/l	600 ACAL	3.1 U	3.1 U	3.1 U	3.1 U
1,3-Dinitrobenzene	ug/l	NA	20 U	20 U	20 U	. 20 U
1,4-Dichlorobenzene	u g/l	5	3.2 U	3.2 U	3.2 U	3.2 U
1,4-Naphthoquinone	ug/l	NA	20 U	20 U	20 U	20 U
I,4-Phenylenediamine	ug/l	NA	50 U	50 U	50 U	50 U
I-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/l	NA	4 U	4 U	4 U	4 U
2,4,6-Trichlorophenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	ug/l	100 ACAL	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dichlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
-Acetylaminofluorene	ug/I	NA	20 U	20 U	20 U	20 U
2-Chloronaphthalene	ug/l	NA	3 U	3 U	3 U	3 U
2-Chlorophenol	ug/l	NA	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	ug/l	NA	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	ug/l	NA	5.3 U	5.3 U	5.3 U	5.3 U
-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
?-Nitroaniline	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
2-Nitrophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2-Picoline	ug/l	NA	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/l	NA	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/l	NA	10 U	10 U	10 U	10 U
-Methylcholanthrene	ug/l	NA	10 U	10 U	10 U	10 U
-Methylphenol	ug/l	NA	10 U	10 U	10 U	10 U
l-Nitroaniline	ug/l	NA	4 U	4 U	4 U	4 U
-Aminobiphenyl	ug/l	NA	20 U	20 U	20 U	20 U
-Bromophenyl phenyl ether	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
-Chloro-3-methylphenol	ug/l	NA	4 U	4 U	4 U	4 U
-Chloroaniline	ug/l	NA	2.9 U	2.9 U	2.9 U	2.9 U
-Chlorophenyl phenyl ether	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
-methylphenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
l-Nitroaniline	ug/l	NA	5 U	5 U	5 U	5 U
-Nitrophenol	ug/l	NA	1.7 U	1.7 U	1.7 U	1.7 U
l-Nitroquinoline-1-oxide	ug/l	NA	50 U	50 U	50 U	50 U
,6-Dinitro-2-methylphenol	ug/l	NA	2.2 U	2.2 U	2.2 U	2.2 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RD-05A	RD-05B	RD-05C	RD-08
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/19/02	11/19/02	11/19/02	11/20/02
Compound	Units	MCL				
-Nitro-o-toluidine	ug/l	NA	10 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/l	NA	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	10 U	10 U	10 U	10 U
Aniline	ug/l	NA	5 U	5 U	5 U	5U
Anthracene	ug/l	NA	lo.8 U	0.8 U	0.8 U	0.8 U
Aramite	ug/i	NA	200 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				-
Benzo(ghi)perylene	ug/l	NA	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA				
Benzyl Alcohol	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	4 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/i	NA	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.93 U	0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/l	NA	0.89 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/l	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	20 U	0.32 U	20 U	0.33 U
Dimethyl phthalate	ug/I	NA	1.9 U	1.9 U	1.9 U	1.9 U
Diphenylamine	ug/l	NA	10 U	10 U	10 U	10 U
Disulfoton	ug/l	NA	0.14 U	0.14 U	0.15 U	0.15 U
thyl methanesulfonate	ug/l	NA	20 U	20 U	20 U	20 U
amphur	ug/l	NA	200 U	200 U	200 U	200 U
luoranthene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
luorene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
lexachlorobenzene	ug/l	1	1.7 U	1.7 Մ	1.7 U	1.7 U
lexachlorobutadiene	ug/I	NA	3.1 U	3.1 U	3.1 U	3.1 U
lexachlorocyclopentadiene	ug/l	50	1.4 U,J	1.4 U	1.4 U,J	1.4 U,J
lexachloroethane	ug/l	NA	2.4 U	2.4 U	2.4 U	2.4 U
lexachlorophene	ug/l	NA	200 U	200 U	200 U	200 U
lexachloropropene	ug/l	NA	10 U	10 U	10 U	10 U
ndeno(1,2,3-cd)pyrene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
sophorone	ug/l	NA	3.2 U	3.2 U	3.2 U	3.2 U
sosafrole	ug/l	NA	10 U	10 U	10 U	10 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compound	ds		I			
Well Identifier	•		RD-05A	RD-05B	RD-05C	RD-08
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/19/02	11/19/02	11/19/02	11/20/02
Compound	Units	MCL				
Methapyrilene	ug/l	NA	100 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/l	ŅA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.7 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	0.5 U	0.5 U		- 0.5 U
N-Nitrosodiphenylamine	ug/l	NA	2.8 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosomorpholine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/l	NA	40 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/l	NA	3.3 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	10 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	10 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Parathion-ethyl	ug/i	40 ACAL	0.15 U	0.15 U	0.15 U	0.15 U
Parathion-methyl	ug/l	2 ACAL	0.12 U	0.12 U	0.13 U	0.13 U
Pentachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	20 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 U	0.165 U	0.165 U
Phenacetin	ug/l	NA	20 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	4 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	10 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.13U	0.13 U	0.14 U	0.14 U
Pronamide	ug/l	NA	10 U	10 U	10 U	10 U
Pyrene	ug/l	NA	0.72 U	0.72 U	0.72 U	0.72 U
Pyridine	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
Safrole	ug/l	NA	10 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.44 U	0.44 U	0.45 U	0.46 U
Thionazin	ug/i	NA	20 U	20 U	20 U	20 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			RD-45B	RD-58A	RD-58B	RD-58C
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/13/02	11/21/02	11/19/02	11/19/02
Compound	Units	MCL		***		
1,2,4,5-Tetrachlorobenzene	ug/l	NA	10 Ü	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	70	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	ug/l	600	3.4 U	3.4 U	3.4 U	3.4 U
1,3,5-Trinitrobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/l	600 ACAL	3.1 U,J	3.1 U	3.1 U	. 3.1 U
1,3-Dinitrobenzene	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	ug/l	5	3.2 U	3.2 U	3.2 U	3.2 U
1,4-Naphthoquinone	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Phenylenediamine	ug/l	NA	50 U	50 U	50 U	50 U
1-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/l	NA	4 U	4 U	4 U	4 U
2,4,6-Trichlorophenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	ug/l	100 ACAL	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/I	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dichlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
2-Acetylaminofluorene	ug/l	NA	20 U	20 U	20 U	20 U
2-Chloronaphthalene	ug/l	NA	3 U	3 U	3 U	3 U
2-Chlorophenol	ug/l	NA	4.9 U,J	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	ug/l	NA	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	ug/l	NA	5.3 U	5.3 U	5.3 U	5.3 U
2-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2-Nitroaniline	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
2-Nitrophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2-Picoline	ug/l	NA	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/l	NA	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/l	NA	10 U	10 U	10 U	10 U
3-Methylcholanthrene	ug/l	NA	10 U	10 U	10 U	10 U
B-Methylphenol	ug/l	NA	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/l	NA	4 U	4 U	4 U	4 U
1-Aminobiphenyl	ug/l	NA	20 U	20 U	20 U	20 U
I-Bromophenyl phenyl ether	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
l-Chloro-3-methylphenol	ug/l	NA	4 U	4 U	4 U	4 U
l-Chloroaniline	ug/l	NA	2.9 U	2.9 U	2.9 U	2.9 U
I-Chlorophenyl phenyl ether	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
1-methylphenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
4-Nitroaniline	ug/l	NA	5 U	5 U	5 U	5 U
4-Nitrophenol	ug/l	NA	1.7 U	1.7 U	1.7 U	1.7 U
4-Nitroquinoline-1-oxide	ug/l	NA	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol	ug/l	NA	2.2 U	2.2 U	2.2 U	2.2 U

SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Semi-Volatile Organic Compound	<u> </u>					
Well Identifier			RD-45B	RD-58A	RD-58B	RD-58C
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/13/02	11/21/02	11/19/02	11/19/02
Compound	Units	MCL				
5-Nitro-o-toluidine	ug/l	NA	10 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/l	NA	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	10 U	10 U	10 U	10 U
Aniline	ug/l	NA	5 U	5 U	5 U	- 5U
Anthracene	ug/i	NA	0.8 U	0.8 U	U 8.0	U 8.0
Aramite	ug/l	NA	200 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				
Benzo(ghi)perylene	ug/l	NA	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA				
Benzyl Alcohol	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	4 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/l	NA	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.93 U	0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/l	NA	0.89 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/l	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	0.32 U	20 U	0.32 U	20 U
Dimethyl phthalate	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
Diphenylamine	ug/l	NA	10 U	10 U	1.0 U	10 U
Disulfoton	ug/l	NA	0.14 U	0.15 U	0.14 U	0.14 U
Ethyl methanesulfonate	ug/i	NA	20 U	20 U	20 U	20 U
Famphur	ug/l	NA	200 U	200 U	200 U	200 U
Fluoranthene	ug/i	NA	0.78 U	0.78 U	0.78 U	0.78 U
Fluorene	ug/i	NA	2.6 U	2.6 U	2.6 U	2.6 U
lexachlorobenzene	ug/l	1	1.7 U	1.7 U	1.7 U	1.7 U
lexachlorobetizene lexachlorobutadiene		NA	3.1 U	3.1 U	3.1 U	3.1 U
lexachlorocyclopentadiene	ug/l	50	1.4 R	1.4 U	3.1 U 1.4 U,J	1.4 U,J
lexachlorocyclopentadiene lexachloroethane	ug/l	NA	2.4 U	1.4 U 2.4 U	1.4 U,J 2.4 U	1.4 U,J 2.4 U
	ug/l		200 U	2.4 U 200 U	2.4 U 200 U	2.4 U 200 U
lexachlorophene	ug/l	NA NA	E .		200 U	200 U
dexachloropropene	ug/l	NA NA	10 U	10 U		
ndeno(1,2,3-cd)pyrene	ug/l	NA NA	0.78 U	0.78 U	0.78 U	0.78 U 3.2 U
sophorone	ug/l	NA	3.2 U	3.2 U 10 U	3.2 U	3.Z U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compound Well Identifier			RD-45B	RD-58A	RD-58B	RD-58C
FLUTe					TO-000	
Sample Type			Primary	Primary	Primary	Primary
Sampled Date		11/13/02	11/21/02	11/19/02	11/19/02	
Compound	Units	MCL	11710702	11121702	11710/02	11/10/02
Methapyrilene	ug/l	NA	100 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/i	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.7 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	20 U	20 U	20 U	. 20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	0.5 U	3.8	0.5 U	0.5 U
N-Nitrosodiphenylamine	ug/l	NA	2.8 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA NA	10 U	10 U	10 U	10 U
N-Nitrosomorpholine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/i	NA	40 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/i	NA	3.3 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	10 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	10 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Parathion-ethyl	ug/l	40 ACAL	0.14 U	0.15 U	0.15 U	0.15 U
Parathion-methyl	ug/l	2 ACAL	0.12 U	0.13 U	0.13 U	0.12 U
Pentachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	20 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 U	0.165 U	0.165 U
Phenacetin	ug/l	NA	20 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	4 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	10 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.13 U	0.14 U	0.14 U	0.13 U
Pronamide	ug/l	NA	10 U	10 U	10 U	10 U
Pyrene	ug/l	NA	0.72 U	0.72 ป	0.72 U	0.72 U
Pyridine	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
Safrole	ug/l	NA	10 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.44 U	0.46 U	0.45 U	0.44 U
Thionazin	ug/l	NA	20 U	20 U	20 U	20 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compou	iius		LIAD 07	1140.00	LIAD 40	1145 45
Well Identifier			HAR-07	HAR-08	HAR-16	HAR-17
FLUTe			 Dalan	Duine and	Comp	
Sample Type			Primary	Primary	Primary	Primary
Sampled Date	Units	MCL	05/14/02	11/20/02	11/06/02	05/07/02
Compound 1,2,4,5-Tetrachlorobenzene	ug/l	NA NA	9.5 U	10 U	10 U	10 U
1,2,4,5-Tetrachlorobenzene 1,2,4-Trichlorobenzene	_	70	3.3 U	3.4 U	3.4 U	3.4 U
1,2,4-111chlorobenzene	ug/l	600	0.11 U	3.4 U 3.4 U		
1,3,5-Trinitrobenzene	ug/l	NA	9.5 U	3.4 U 10 U	3.4 _. U 10 U	0.22 U
1,3-Dichlorobenzene	ug/l	600 ACAL	0.13 U	3.1 U	3.1 U	10 U 0.26 U
1,3-Dichlorobenzene	ug/l	NA	19 U	3.1 U 20 U		20 U
1,4-Dichlorobenzene	ug/l	5	0.11 U	3.2 U	3.2 U	0.22 U
1,4-Dictionoperizene 1,4-Naphthoquinone	ug/l	NA	19 U	3.2 U 20 U	3.2 U 20 U	
	ug/l		48 U			20 U
I,4-Phenylenediamine I-Naphthylamine	ug/l	NA NA	9.5 U	50 U 10 U	50 U 10 U	50 U
r-Naphthylamine 2,3,4,6-Tetrachlorophenol	ug/l	NA NA	9.5 U 9.5 U	10 U	10 U 10 U	10 U 10 U
2,3,4,6-Tetrachiorophenol	ug/l	NA NA	3.8 U	10 U 4 U	10 U 4 U	10 U 4 U
2,4,6-Trichlorophenol	ug/l	NA NA	4.3 U	4 U 4.5 U	4 U 4.5 U	4 U 4.5 U
2,4,0-Themorophenol	ug/l ug/l	NA NA	4.5 U	4.5 U 4.8 U	4.5 U 4.8 U	4.5 U 4.8 U
2,4-Dimethylphenol	-	100 ACAL	5.7 U	4.6 U	4.0 U 6 U	4.6 U
2,4-Dinitrophenol	ug/l	NA NA	1.2 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/l	NA NA	1.2 U	1.3 U 1.3 U	1.3 U 1.3 U	1.3 U
,,4-Dirittotoidene ,,6-Dichlorophenol	ug/i	NA NA	9.5 U	1.3 U 10 U	1.3 U 10 U	1.3 U 10 U
,6-Dinitrotoluene	ug/l ug/l	NA NA	1.8 U	1.9 U	1.9 U	1.9 U
:-Acetylaminofluorene	ug/i ug/i	NA NA	1.8 U	20 U	20 U	20 U
-Chloronaphthalene	ug/i	NA NA	2.9 U	3 U	20 U	3 U
2-Chlorophenol	ug/l	NA .	4.7 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	ug/l	NA	3.3 U	4.5 U	4.9 U	3.5 U
2-Methylphenol	ug/l	NA	5.5 U	5.3 U	5.3 U	5.3 U
P-Naphthylamine	ug/l	NA	9.5 U	10 U	10 U	10 U
2-Nitroaniline	ug/i ug/i	NA	2.5 U	2.6 U	2.6 U	2.6 U
-Nitrophenol	ug/i ug/i	NA NA	4.5 U	4.8 U	4.8 U	4.8 U
:-Nicoline	ug/i ug/i	NA	9.5 U	4.8 U	4.8 U 10 U	4.8 U
3,3'-Dichlorobenzidine	ug/l	NA	19 U	20 U	20 U	20 U
,3'-Dimethylbenzidine	· ug/l	NA	9.5 U	10 U	10 U	10 U
-Methylcholanthrene	ug/l	NA	9.5 U	10 U	10 U	10 U
-Methylphenol	ug/l	NA	9.5 U	10 U	10 U	10 U
-Nitroaniline	ug/l	NA	3.8 U	4 U	4 U	4 U
-Aminobiphenyl	ug/i	NA	19 U	20 U	20 U	20 U
-Bromophenyl phenyl ether	ug/l	NA	2 U	2.1 U	2.1 U	2.1 U
-Chloro-3-methylphenol	ug/i	NA	3.8 U	4 U	4 U	4 U
-Chloroaniline	ug/l	NA	2.8 U	2.9 U	2.9 U	2.9 U
-Chlorophenyl phenyl ether	ug/l	NA	2.5 U	2.6 U	2.6 U	2.6 U
-methylphenol	ug/l	NA	4.3 U	4.5 U	4.5 U	4.5 U
-Nitroaniline	ug/i	NA	4.7 U	5 U	5 U	5 U
-Nitrophenol	ug/l	NA	1.6 U	1.7 U	1.7 U	1.7 U
-Nitroquinoline-1-oxide	ug/l	NA	48 U	50 U	50 U	50 U
,6-Dinitro-2-methylphenol	ug/l	NA	2.1 U	2.2 U	2.2 U	2.2 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	·		HAR-07	HAR-08	HAR-16	HAR-17
FLUTe			 		Comp	***
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/14/02	11/20/02	11/06/02	05/07/02
Compound	Units	MCL				
5-Nitro-o-toluidine	ug/l	NA	9.5 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/l	NA	9.5 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.5 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.4 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	9.5 U	10 U	10 U	. 10 U
Aniline	ug/l	NA	4.7 U	5 U	5 U	5 U
Anthracene	ug/l	NA	0.76 U	U 8.0	U 8.0	0.8 U
Aramite	ug/l	NA	190 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.7 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.5 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.92 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				
Benzo(ghi)perylene	ug/l	NA	0.93 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA				
Benzyl Alcohol	ug/l	NA	3 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.5 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/l	NA	3.4 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	3.8 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.5 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA	0.87 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.91 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/l	NA	0.88 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.89 U	0.93 U	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/i	NA	0.85 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.4 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/l	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	0.32 U	20 U	20 U	0.32 U
Dimethyl phthalate	ug/l	NA	1.8 U	1.9 U	⁻ 1.9 U	1.9 U
Diphenylamine	ug/l	NA	9.5 U	10 U	10 U	10 U
Disulfoton	ug/l	NA	0.15 U	0.15 U		0.14 U
Ethyl methanesulfonate	ug/l	NA	19 U	20 U	20 U	20 U
Famphur	ug/l	NA	190 U	200 U	200 U	200 U
Fluoranthene	ug/l	NA	0.74 U	0.78 U	0.78 U	0.78 U
Fluorene	ug/l	NA	2.5 U	2.6 U	2.6 U	2.6 U
Hexachlorobenzene	ug/l	1	1.6 U	1.7 U	1.7 U	1.7 U
Hexachlorobutadiene	ug/l	NA	3 U	3.1 U	3.1 U	3.1 U
Hexachlorocyclopentadiene	ug/l	50	1.3 U	1.4 U	1.4 U	1.4 U
Hexachloroethane	ug/l	NA	2.3 U	2.4 U	2.4 U	2.4 U
Hexachlorophene	ug/l	NA	190 U	200 U	200 U	200 U
Hexachloropropene	ug/l	NA	9.5 U	10 U	10 U	10 U
Indeno(1,2,3-cd)pyrene	ug/l	NA	0.74 U	0.78 U	0.78 U	0.78 U
Isophorone	ug/l	NA	3.1 U	3.2 U	3.2 U	3.2 U
Isosafrole	ug/l	NA	9.5 U	10 U	10 U	10 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compound	ds					
Well Identifier			HAR-07	HAR-08	HAR-16	HAR-17
FLUTe					Comp	
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			05/14/02	11/20/02	11/06/02	05/07/02
Compound	Units	MCL		······································	·····	
Methapyrilene	ug/l	NA	95 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	9.5 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/l	NA	9.5 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.5 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	19 U	20 U	20 U	20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	62	16		
N-Nitrosodiphenylamine	ug/l	NA	2.6 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA	9.5 U	10 U	10 U	10 U
N-Nitrosomorpholine	ug/l	NA	9.5 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	19 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/l	NA	38 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.6 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/l	NA	3.1 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	9.5 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	9.5 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	9.5 U	10 U	10 U	10 U
Parathion-ethyl	ug/l	40 ACAL	0.15 U	0.15 U		0.15 U
Parathion-methyl	ug/l	2 ACAL	0.13 U	0.13 U	***	0.12 U
Pentachlorobenzene	ug/l	NA	9.5 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	9.5 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	19 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 U	2.1 U	0.165 U
Phenacetin	ug/l	NA	19 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	3.8 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	9.5 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.14 U	0.14 U		0.13 U
Pronamide	ug/l	NA	9.5 U	10 U	10 U	10 U
Pyrene	ug/l	NA ·	0.69 U	0.72 U	0.72 U	0.72 U
Pyridine	ug/l	NA	2 U	2.1 U	2.1 U	2.1 U
Safrole	ug/l	NA	9.5 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.45 U	0.46 U		0.44 U
Thionazin	ug/l	NA	19 U	20 U	20 U	20 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-21	HAR-26	WS-09	WS-09A
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL				
1,2,4,5-Tetrachlorobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,2,4-Trichlorobenzene	ug/l	70	3.4 U	3.4 U	3.4 U	3.4 U
1,2-Dichlorobenzene	ug/l	600	3.4 U	3.4 U	3.4 U	3.4 U
1,3,5-Trinitrobenzene	ug/l	NA	10 U	10 U	10 U	10 U
1,3-Dichlorobenzene	ug/l	600 ACAL	3.1 U	3.1 U	3.1 U	. 3.1 U
1,3-Dinitrobenzene	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Dichlorobenzene	ug/l	5	3.2 U	3.2 U	3.2 U	3.2 U
1,4-Naphthoquinone	ug/l	NA	20 U	20 U	20 U	20 U
1,4-Phenylenediamine	ug/l	NA	50 U	50 U	50 U	50 U
1-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2,3,4,6-Tetrachlorophenol	ug/l	NA	10 U	10 U	10 U	10 U
2,4,5-Trichlorophenol	ug/l	NA	4 U	4 U	4 U	4 U
2,4,6-Trichlorophenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
2,4-Dichlorophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2,4-Dimethylphenol	ug/l	100 ACAL	6 U	6 U	6 U	6 U
2,4-Dinitrophenol	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,4-Dinitrotoluene	ug/l	NA	1.3 U	1.3 U	1.3 U	1.3 U
2,6-Dichlorophenol	ug/i	NA	10 U	10 U	10 U	10 U
2,6-Dinitrotoluene	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
2-Acetylaminofluorene	ug/l	NA	20 U	20 U	20 U	20 U
2-Chloronaphthalene	ug/l	NA	3 U	3 U	3 U	3 U
2-Chlorophenol	ug/l	NA	4.9 U	4.9 U	4.9 U	4.9 U
2-Methylnaphthalene	ug/i	NA	3.5 U	3.5 U	3.5 U	3.5 U
2-Methylphenol	ug/l	NA	5.3 U	5.3 U	5.3 U	5.3 U
2-Naphthylamine	ug/l	NA	10 U	10 U	10 U	10 U
2-Nitroaniline	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
2-Nitrophenol	ug/l	NA	4.8 U	4.8 U	4.8 U	4.8 U
2-Picoline	ug/l	NA	10 U	10 U	10 U	10 U
3,3'-Dichlorobenzidine	ug/l	NA	20 U	20 U	20 U	20 U
3,3'-Dimethylbenzidine	ug/l	NA	10 U	10 U	10 U	10 U
3-Methylcholanthrene	ug/l	NA	10 U	10 U	10 U	10 U
3-Methylphenol	ug/l	NA	10 U	10 U	10 U	10 U
3-Nitroaniline	ug/l	NA	4 U	4 U	4 U	4 U
4-Aminobiphenyl	ug/l	NA	20 U	20 U	20 U	20 U
4-Bromophenyl phenyl ether	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
4-Chloro-3-methylphenol	ug/l	NA	4 U	4 U	4 U	4 U
4-Chloroaniline	ug/i	NA	2.9 U	2.9 U	2.9 U	2.9 U
4-Chlorophenyl phenyl ether	ug/l	NA	2.6 ∪	2.6 U	2.6 U	2.6 U
4-methylphenol	ug/l	NA	4.5 U	4.5 U	4.5 U	4.5 U
4-Nitroaniline	ug/l	NA	5 U	5 U	5 U	5 U
4-Nitrophenol	ug/l	NA	1.7 U	1.7 U	1.7 U	1.7 U
4-Nitroquinoline-1-oxide	ug/l	NA	50 U	50 U	50 U	50 U
4,6-Dinitro-2-methylphenol	ug/l	NA	2.2 U	2.2 U	2.2 U	2.2 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier			HAR-21	HAR-26	WS-09	WS-09A
FLUTe						
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL			· · · · · · · · · · · · · · · · · · ·	
5-Nitro-o-toluidine	ug/l	NA	10 U	10 U	10 U	10 U
7,12-Dimethylbenz(a)anthracene	ug/i	NA	10 U	10 U	10 U	10 U
Acenaphthene	ug/l	NA	2.6 U	2.6 U	2.6 U	2.6 U
Acenaphthylene	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Acetophenone	ug/l	NA	10 U	10 U	10 U	10 U
Aniline	ug/l	NA	5 U	5 U		- 5 U
Anthracene	ug/i	NA	0.8 U	0.8 U	0.8 U	0.8 U
Aramite	ug/l	NA	200 U	200 U	200 U	200 U
Benzo (b+k) fluoranthene (total)	ug/l	NA	1.8 U	1.8 U	1.8 U	1.8 U
Benzo(a)anthracene	ug/l	NA	0.53 U	0.53 U	0.53 U	0.53 U
Benzo(a)pyrene	ug/l	0.2	0.97 U	0.97 U	0.97 U	0.97 U
Benzo(b)fluoranthene	ug/l	NA				
Benzo(ghi)perylene	ug/l	NA	0.98 U	0.98 U	0.98 U	0.98 U
Benzo(k)fluoranthene	ug/l	NA				
Benzyl Alcohol	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
Bis(2-Chloroethoxy)methane	ug/l	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroethyl)ether	ug/i	NA	3.6 U	3.6 U	3.6 U	3.6 U
Bis(2-chloroisopropyl)ether	ug/l	NA	4 U	4 U	4 U	4 U
Bis(2-Ethylhexyl) phthalate	ug/l	4	3.6 U	3.6 U	3.6 U	3.6 U
Butyl benzyl phthalate	ug/l	NA -	0.91 U	0.91 U	0.91 U	0.91 U
Chrysene	ug/l	NA	0.96 U	0.96 U	0.96 U	0.96 U
Di-n-butyl phthalate	ug/l	NA	0.92 U	0.92 U	0.92 U	0.92 U
Di-n-octyl phthalate	ug/l	NA	0.93 U	0.93 ป	0.93 U	0.93 U
Dibenz(a,h)anthracene	ug/i	NA	0.89 U	0.89 U	0.89 U	0.89 U
Dibenzofuran	ug/l	NA	2.5 U	2.5 U	2.5 U	2.5 U
Diethyl phthalate	ug/l	NA	1.2 U	1.2 U	1.2 U	1.2 U
Dimethoate	ug/l	1 ACAL	0.32 U	20 U	20 U	0.32 U
Dimethyl phthalate	ug/l	NA	1.9 U	1.9 U	1.9 U	1.9 U
Diphenylamine	ug/l	NA	10 U	10 U	10 U	10 U
Disulfoton	ug/l	NA	0.14 U	0.14 U	0.15 ป	0.14 U
Ethyl methanesulfonate	ug/l	NA	20 U	20 U	20 U	20 U
amphur	ug/i	NA	200 U	200 U	200 U	200 U
Fluoranthene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
Fluorene	ug/l	NA	2.6 U	2.6 U	- 2.6 U	2.6 U
łexachlorobenzene	ug/l	1	1.7 U	1.7 U	1.7 U	1.7 U
lexachlorobutadiene	ug/l	NA	3.1 U	3.1 U	3.1 U	3.1 U
lexachlorocyclopentadiene	ug/l	50	1.4 U	1.4 U	1.4 U,J	1.4 U
lexachloroethane	ug/l	NA	2.4 U	2.4 U	2.4 U	2.4 U
łexachlorophene	ug/l	NA	200 U	200 U	200 U	200 U
lexachloropropene	ug/l	NA	10 U	10 U	10 U	10 U
ndeno(1,2,3-cd)pyrene	ug/l	NA	0.78 U	0.78 U	0.78 U	0.78 U
sophorone	ug/l	NA	3.2 U	3.2 U	3.2 U	3.2 U
sosafrole	ug/l	NA	10 U	10 U	10 U	10 U

TABLE 11
SUMMARY OF ANALYSES FOR APPENDIX IX CONSTITUENTS, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Semi-Volatile Organic Compound	s					
Well Identifier			HAR-21	HAR-26	WS-09	WS-09A
FLUTe						***
Sample Type			Primary	Primary	Primary	Primary
Sampled Date			11/06/02	11/20/02	11/21/02	11/20/02
Compound	Units	MCL				
Methapyrilene	ug/l	NA	100 U	100 U	100 U	100 U
Methyl methanesulfonate	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-butylamine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosodi-n-propylamine	ug/l	NA	3.7 U	3.7 U	3.7 U	3.7 U
N-Nitrosodiethylamine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosodimethylamine	ng/l	10 ACAL	64	0.5 U	0.5 U	์ 0.5 U
N-Nitrosodiphenylamine	ug/l	NA	2.8 U	2.8 U	2.8 U	2.8 U
N-Nitrosomethylethylamine	ug/l	NA	10 U	10 U	` 10 U	10 U
N-Nitrosomorpholine	ug/l	NA	10 U	10 U	10 U	10 U
N-Nitrosopiperidine	ug/l	NA	20 U	20 U	20 U	20 U
N-Nitrosopyrrolidine	ug/l	NA	40 U	40 U	40 U	40 U
Naphthalene	ug/l	170 ACAL	3.8 U	3.8 U	3.8 U	3.8 U
Nitrobenzene	ug/l	NA	3.3 U	3.3 U	3.3 U	3.3 U
O,O,O-Triethylphosphorothioate	ug/l	NA	10 U	10 U	10 U	10 U
o-Toluidine	ug/l	NA	10 U	10 U	10 U	10 U
p-Dimethylaminoazobenzene	ug/l	NA	10 U	10 U	10 U	10 U
Parathion-ethyl	ug/l	40 ACAL	0.15 U	0.15 U	0.15 U	0.14 U
Parathion-methyl	ug/l	2 ACAL	0.12 U	0.13 U	0.13 U	0.12 U
Pentachlorobenzene	ug/i	NA	10 U	10 U	10 U	10 U
Pentachloroethane	ug/l	NA	10 U	10 U	10 U	10 U
Pentachloronitrobenzene	ug/l	20 ACAL	20 U	20 U	20 U	20 U
Pentachlorophenol	ug/l	1	0.165 U	0.165 U	0.165 U	0.165 U
Phenacetin	ug/l	NA	20 U	20 U	20 U	20 U
Phenanthrene	ug/l	NA	1.4 U	1.4 U	1.4 U	1.4 U
Phenol	ug/l	4200 ACAL	4 U	4 U	4 U	4 U
a,a-Dimethylphenethylamine	ug/l	NA	10 U	10 U	10 U	10 U
Phorate	ug/l	NA	0.13 U	0.14 U	0.14 U	0.13 U
Pronamide	ug/l	NA	10 U	10 U	10 U	10 U
Pyrene	ug/l	NA	0.72 U	0.72 U	0.72 U	0.72 U
Pyridine	ug/l	NA	2.1 U	2.1 U	2.1 U	2.1 U
Safrole	ug/i	NA	10 U	10 U	10 U	10 U
Sulfotepp	ug/l	NA	0.44 U	0.45 U	0.45 U	0.44 U
Thionazin	ug/l	NA	20 U	20 U	20 U	20 U

TABLE 11 FOOTNOTES AND EXPLANATIONS

DMA	=	Del Mar Analytical of Irvine, California.
()	=	Analysis not performed.
Primary Dup	=	Primary sample. Duplicate sample.
mg/l ug/l ng/l pg/l	= = =	Milligrams per liter. Micrograms per liter. Nanograms per liter. Picograms per liter.
MCL	=	Maximum Contaminant Level, California primary drinking water standard. (California Department of Health Services, MCLs, DLRs, and Unregulated Chemicals Requiring Monitoring, 2002; http://www.dhs.ca.gov/ps/ddwem/chemicals/mcl/mclindex.htm).
SMCL	=	Secondary drinking water MCL.
ECAL	=	Enforceable California Action Level to be met at a customer tap.
ACAL	=	Advisory California Action Level for unregulated chemical contaminants.
NA	=	Not available; no MCL promulgated.
D	=	Result from diluted sample.
HTV	=	Sample analyzed past holding time.
J	=	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).
R	=	The analyte results were rejected; presence or absence of the analyte cannot be verified.
U	=	Not detected; numerical value represents the Method Detection Limit for that compound.
Comp	=	Composite sample. The HAR-01 sample was composited from FLUTe ports 6 through 10. The HAR-16 sample was composited from FLUTe ports 7 through 12.
TEQ	=	Toxicity equivalent.

Notes:

Low-level 1,4-dioxane analyses were performed by Ceimic Corporation using modified EPA method 8260 SIM.

TABLE 12
SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier		RD-01	RD-01	RD-01	RD-02	RD-02	RD-02	RD-02	RD-02
Sample Type		Primary	Dup	Split	Primary	Primary	Primary	Dup -	Split
FLUTe Sample Port		400	***	****	***				
Sample Date	Units	11/06/02	11/06/02	11/06/02	03/05/02	05/08/02	11/06/02	11/06/02	11/06/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/l	1.8 U	1.8 U	****	0.65 U	0.35 U	0.44 U		
1,1,2-Trichloroethane	ug/l	4.2 U	4.2 U	****	1.6 U	0.84 U	1 U		
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	24 U	24 U		1.6 U	4.8 U	6 U	***	
1,1-Dichloroethane	ug/l	2.4 U	2.4 U	***	0.65 U	0.48 U	0.6 U		
1,1-Dichloroethene	ug/l	2.2 U	2.2 U		2.1 J	2.6 J	1.6 J		
1,2-Dichloroethane	ug/i	3.6 U	3.6 U		1.1 U	0.72 U	0.9 U		
1,3-Dinitrobenzene	ug/l	8.4 U	***		200 U,T	2.1 U	8.4 U		***
1,4-Dioxane	ug/l	0.32 U	***	1.6	3 U	0.32 U	0.32 U	0.32 U	1.4
2-Butanone	ug/l	76 U	76 U	***	16 U	15 U	19 U	***	
Acetone	ug/l	74 U	74 U		25 U	15 U	18 U		
Benzene	ug/l	2 U	2 U		0.55 U	0.4 U	0.5 U		
Carbon tetrachloride	ug/l	2.4 U	2.4 U	***	0.75 U	0.48 U	0.6 U		
Chloroform	ug/l	1.9 U	1.9 U	***	0.95 U	0.38 U	0.48 U		
cis-1,2-Dichloroethene	ug/i	860	900		390	580	480		
Ethylbenzene	ug/l	2 U	2 U		0.9 U	0.4 U	0.5 U	***	
m,p-Xylenes	ug/l	3.8 U	3.8 U		3.4 U	0.76 U	0.95 U		
Methylene chloride	ug/l	4.8 U	4.8 U	***	1.2 J,B,L	2.4 J,L	1.2 U		***
n-Nitrosodimethylamine	ng/l	56			1.8 J,B	2 U	11		
Nitrobenzene	ug/l	9.6 U	-		3.2 U	3.2 U	9.6 U		
o-Xylene	ug/l	2 U	2 U		0.7 U	0.4 U	0.5 U		
Perchlorate	ug/l	1.5 U			0.43 U	0.43 U	1.5 U		
Tetrachloroethene	ug/l	2.6 U	2.6 U		0.8 U	0.52 U	0.65 U		
Toluene	ug/l	2.6 U	2.6 U	****	0.46 U	0.52 U	0.65 U		
trans-1,2-Dichloroethene	ug/l	30	35		30	47	34		
Trichloroethene	ug/l	1200	1200		430	470	350		
Trichlorofluoromethane	ug/l	4.2 U	4.2 U		0.85 U	0.84 U	1 U		
Vinyl chloride	ug/l	32	33		14	20	16		
Naturally Occurring Constituents									
Ammonia-N	mg/l	0.087 U			0.087 U	0.087 U	0.087 U		
Fluoride	mg/l	0.55 B	=		0.4 J	0.44 J	0.51 B		
Formaldehyde	ug/l	20 U			21 J,B	27 J,B,L	20 U		
Nitrate-N	mg/l	0.28			0.032 U	0.032 U	0.072 U		
Laboratory		DMA	DMA	DMA	DMA	DMA	DMA	DMA	DMA

See last page of Table 12 for footnotes and explanations. Haley & Aldrich

TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		RD-04	RD-04	RD-04	RD-10	RD-10	RD-10	RD-10	RD-44
Sample Type		Primary	Primary	Split	Primary	Primary	Primary	Primary	Primary
FLUTe Sample Port			***		***	Comp	Comp	Comp	-
Sample Date	Units	08/12/02	11/06/02	11/06/02	03/05/02	05/09/02	08/20/02	11/07/02	03/05/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/l	0.088 U	0.088 U	0.2 U	0.13 U	0.088 U	0.088 U	0.088 U	0.13 U
1,1,2-Trichloroethane	ug/l	0.21 U	0.21 U	0.2 U	0.31 U	0.21 U	0.21 U	0.21 U	0.31 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	1.2 U	1.2 U	0.2 U	0.32 U	1.2 U	1.2 U	1.2 U	0.32 U
1,1-Dichloroethane	ug/l	0.12 U	0.12 U	0.2 U	0.13 U	0.12 U	0.12 U	0.12 U	0.13 U
1,1-Dichloroethene	ug/i	0.11 U	0.11 U	0.3 U	0.14 U	0.11 U	0.11 U	0.11 U	0.14 U
1,2-Dichloroethane	ug/l	0.18 U	0.18 U	0.2 U	0.22 U	0.18 U	0.18 U	0.18 U	0.22 U
1,3-Dinitrobenzene	ug/l	2.1 U	8.4 U		200 U,T	2.1 U	2.1 U	8.4 U	200 U,T
1,4-Dioxane	ug/l	0.32 U		0.3 U	3 U	0.32U	0.32 U	2.16 J	3 U
2-Butanone	ug/l	3.8 U	3.8 U	7 U	3.2 U	3.8 U	3.8 U	14 F	3.2 U
Acetone	ug/l	3.7 U	4.8 J,L	3 U	5 U	3.7 U	3.7 U	3.7 U	5 U
Benzene	ug/l	0.1 U	0.1 U	0.1 U	0.11 U	0.1 U	0.17 J,F	0.19 J,F	0.11 U
Carbon tetrachloride	ug/l	0.12 U	0.12 U	0.3 U	0.15 U	0.12 U	0.12 U	0.12 U	0.15 U
Chloroform	ug/l	0.095 U	0.095 U	0.2 U	0.19 U	0.14 J	0.095 U	0.095 U	0.19 U
cis-1,2-Dichloroethene	ug/l	13	15	12	9.4	10	10	12	0.14 U
Ethylbenzene	ug/l	0.099 U	0.099 U	0.2 U	0.18 U	0.099 U	0.099 U	0.099 U	0.18 U
m,p-Xylenes	ug/l	0.19 U	0.19 U	0.3 U	0.69 U	0.19 U	0.19 U	0.19 U	0.69 U
Methylene chloride	ug/l	0.29 J	0.24 U	3 U	0.22 ป	0.38 J,B,L	0.24 U	0.24 U	0.22 U
n-Nitrosodimethylamine	ng/l	2 U	26		1.2 J,B	2 U	2 U	0.5 U	1.8 J,B
Nitrobenzene	ug/l	3.2 U	9.6 U		3.2 U	3.2 U	3.2 U	9.6 ป	3.2 U
o-Xylene	ug/l	0.1 U	0.1 U	0.2 U	0.14 U	0.1 U	0.1 U	0.1 U	0.14 U
Perchlorate	ug/l	0.43 U	1.5 U		54	180	180	160	0.43 U
Tetrachloroethene	ug/l	0.13 U	0.13 U	0.2 U	0.16 U	0.13 U	0.13 U	0.13 U	0.16 U
Toluene	ug/l	0.13 U	0.13 U	0.2 U	0.093 U	0.13 U	0.13 U	0.13 U	0.14 J,V
trans-1,2-Dichloroethene	ug/i	0.54 J	0.4 J	0.2 U	1.2	0.86 J	0.7 J	0.67 J	0.11 U
Trichloroethene	ug/l	45	46	45	11	15	6	7.2	0.14 U
Trichlorofluoromethane	ug/l	0.21 U	0.21 U	0.1 U	0.17 U	0.21 U	0.21 U	0.21 U	0.17 U
Vinyl chloride	ug/l	0.13 U	0.13 U	0.2 U	0.21 U	0.13 U	0.13 U	0.13 U	0.21 U
Naturally Occurring Constituents									
Ammonia-N	mg/l	0.59	0.087 U		0.087 U	0.087 U	0.12 J	0.087 U	0.09 J
Fluoride	mg/l	0.42 J	0.46 J,B		0.49 J	0.39 J	0.45 J,B	0.2 U	0.54
Formaldehyde	ug/l	30 U	20 U	***	7.8 J,B	5.1 J,B,L	30 U	20 U	12 J,B
Nitrate-N	mg/l	0.032 U_	0.072 U		0.1 J	0.25	0.22	0.18	0.032 U
Laboratory		DMA	DMA	AmA	DMA	DMA	DMA	DMA	DMA

Haley & Aldrich

TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		RD-44	RD-44	RD-44	RD-44	RD-44	RD-44	RD-44	RD-49A
Sample Type		Dup	Split	Primary	Dup	Split	Primary	Primary	Primary
FLUTe Sample Port									
Sample Date	Units	03/05/02	03/05/02	05/07/02	05/07/02	05/07/02	08/13/02	11/05/02	03/07/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/l			0.088 U	0.088 U	0.3 U	0.088 U	0.088 U	2.6 U
1,1,2-Trichloroethane	ug/l			0.21 U	0.21 U	0.2 U	0,21 U	0.21 U	6.2 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l			1.2 U	1.2 U	0.2 U	1.2 U	1.2 U	6.4 U
1,1-Dichloroethane	ug/l			0.12 U	0.12 U	0.2 U	0.12 U	0.12 U	2.6 U
1,1-Dichloroethene	ug/l			0.11 U	0.11 U	0.2 U	0.11 U	0.11 U	2.8 U
1,2-Dichloroethane	ug/l			0.18 U	0.18 U	0.3 U	0.18 U	0.18 U	4.4 U
1,3-Dinitrobenzene	ug/l			2.1 U			2.1 U	8.4 U	2.1 U
1,4-Dioxane	ug/l			0.32 U		~~~	0.32 U	4.17 J	3 U
2-Butanone	ug/l			3.8 U	3.8 U	2 U .	3.8 U	3.8 U	64 U
Acetone	ug/l			3.7 U	3.7 U	0.9 U	3.7 U	4 J,L	100 U
Benzene	ug/l			0.1 U	0.1 U	0.2 U	0.1 U	0.1 U	2.2 U
Carbon tetrachloride	ug/l			0.12 U	0.12 U	0.5 U	0.12 U	0.12 U	3 U
Chloroform	ug/l			0.095 U	0.095 U	0.2 U	0.095 U	0.095 U	3.8 U
cis-1,2-Dichloroethene	ug/l			0.13 J,C	0.13 U	0.3 U	0.13 U	0.13 U	1100
Ethylbenzene	ug/l			0.099 U	0.099 U	0.2 U	0.099 U	0.099 U	3.6 U
m,p-Xylenes	ug/l			0.19 U	0.19 U	0.3 U	0.19 U	0.19 U	14 U
Methylene chloride	ug/l			0.24 U	0.24 U	2 U	0.24 U	0.24 U	6.8 J,B,L
n-Nitrosodimethylamine	ng/l	0.71 J,B	2 U	2 U		***	4 U	0.5 U	1.4 J,B
Nitrobenzene	ug/l			3.2 U		***	3.2 U	9.6 U	3.2 U
o-Xylene	ug/l			0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	2.8 U
Perchlorate	ug/l			0.43 U			0.43 U	1.5 U	0.43 U
Tetrachloroethene	ug/l		***	0.13 U	0.13 U	0.2 U	0.13 U	0.13 U	3.2 U
Toluene	ug/l			0.26 J,V	0.14 J,V	0.3 U	0.27 J,B	0.13 U	1.9 U
trans-1,2-Dichloroethene	ug/l			0.13 U	0.13 U	0.3 U	0.13 U	0.13 U	37
Trichloroethene	ug/l			0.39 J,C	0.35 J,C	0.3 U	0.13 U	0.13 U	3300
Trichlorofluoromethane	ug/l			0.21 U	0.21 U	0.2 U	0.21 U	0.21 U	3.4 U
Vinyl chloride	ug/l			0.13 U	0.13 U	0.3 U	[.] 0.13 U	0.13 U	4.2 U
Naturally Occurring Constituents									
Ammonia-N	mg/l			0.087 U			0.42 J	0,087 U	0.087 U
Fluoride	mg/l			0.51			0.61 B	0.67	0.35 J,B
Formaldehyde	ug/l			40 J,B,L		***	27 J	20 U	7.3 J,B
Nitrate-N	mg/l		-	0.032 U			0.054 J	0.072 U	0.082 J
Laboratory		DMA	AmA	DMA	DMA	AmA	DMA	DMA	DMA

See last page of Table 12 for footnotes and explanations. Haley & Aldrich

TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		RD-49A	RD-49A	RD-49A	RD-49B	RD-49B	RD-49B	RD-49B	RD-49B
Sample Type		Primary	Primary	Primary	Primary	Primary	Dup	Split	Primary
FLUTe Sample Port			-			***			
Sample Date	Units	05/07/02	08/20/02	11/04/02	03/07/02	05/07/02	05/07/02	05/07/02	08/14/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/l	1.8 U	1.8 U	1.8 U	0.65 U	0.44 U			0.35 U
1,1,2-Trichloroethane	ug/l	4.2 U	4.2 U	4.2 U	1.6 U	1 U			0.84 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	1.2 U	24 U	24 U	1.6 U	1.2 U			4.8 U
1,1-Dichloroethane	ug/l	2.4 U	2.4 U	2.4 U	0.65 U	0.6 U			0.48 U
1,1-Dichloroethene	ug/l	2.2 U	7.8 J	4.4 J	0.7 U	0.55 U			0.44 U
1,2-Dichloroethane	ug/l	3.6 U	3.6 U	3.6 U	1.1 U	0.9 U			0.72 U
1,3-Dinitrobenzene	ug/l	2.1 U	2.1 U	8.4 U	2.1 U	2.1 U			2.1 U
1,4-Dioxane	ug/l	0.32 U	0.32 U		3 U	0.32 U			0.32 U
2-Butanone	ug/l	76 U	76 U	76 U	16 U	19 U			15 U
Acetone	ug/l	74 U	74 U	74 U	25 U	18 U		***	15 U
Benzene	ug/l	2 U	2 U	2 U	0.55 U	0.5 U			0.4 U
Carbon tetrachloride	ug/l	2.4 U	2.4 U	2.4 U	0.75 U	0.6 U			0.48 U
Chloroform	ug/l	1.9 U	1.9 U	1.9 U	0.95 U	0.48 U			0.38 U
cis-1,2-Dichloroethene	ug/l	1500	2100	1400	200	240			240
Ethylbenzene	ug/i	2 U	2 U	2 U	0.9 U	0.5 U			0.4 U
m,p-Xylenes	ug/l	3.8 U	3.8 U	3.8 U	3.4 U	0.95 U			0.76 U
Methylene chloride	ug/l	9 J,B,L	4.8 U	4.8 U	1.4 J,B,L	2.8 J,B,L			0.96 U
n-Nitrosodimethylamine	ng/l	2 U	2.5	0.5 U	56	41	40 .	48 HTV	47
Nitrobenzene	ug/l	3.2 U	3.2 U	9.6 U	3.2 U	3.2 U			3.2 U
o-Xylene	ug/l	2 U	2 U	2 U	0.7 U	0.5 U			0.4 U
Perchlorate	ug/l	0.43 U	0.43 U	1.5 U	0.43 U	0.43 U			0.43 U
Tetrachloroethene	ug/l	2.6 U	2.6 U	2.6 U	0.8 U	0.65 U			0.52 U
Toluene	ug/l	2.6 U	2.6 U	2.6 U	0.46 U	0.65 U			0.52 U
trans-1,2-Dichloroethene	ug/l	36	56	34	12	23	***		12
Trichloroethene	ug/l	3100	2600	3500	290	350			300
Trichlorofluoromethane	ug/l	4.2 U	4.2 U	4.2 U	0.85 U	1 U			0.84 U
Vinyl chloride	ug/l	2.6 U	2.6 U	2.6 U	5.1	6	•		5.7
Naturally Occurring Constituents									
Ammonia-N	mg/l	0.087 U	0.091 J	0.089 J	0.087 U	0.087 U			0.16 J
Fluoride	mg/l	0.64 J	0.74 J	0.77	0.27 J,B	0.36 J	***		0.36 J,B
Formaldehyde	ug/l	33 J,B,L	110	20 U	4.8 J,B	15 J,B,L			30 U
Nitrate-N	mg/l	0.1 J	0.064 U,HTV		0.032 U	0.032 U	***		0.032 U
Laboratory		DMA	DMA	DMA	DMA	DMA	DMA	AmA	DMA

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TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		RD-49B	RD-49C	RD-49C	RD-49C	RD-49C	RD-49C	RD-49C	WS-05
Sample Type		Primary	Primary	Primary	Dup	Split	Primary	Primary	Primary
FLUTe Sample Port									
Sample Date	Units	11/04/02	03/07/02	05/08/02	05/08/02	05/08/02	08/14/02	11/04/02	03/07/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/l	0.18 U	0.13 U	0.088 U		***	0.088 U	0.088 U	0.13 U
1,1,2-Trichloroethane	ug/l	0.42 U	0.31 U	0.21 U		***	0.21 U	0.21 U	0.31 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	2.4 U	0.32 U	1.2 U	***		1.2 U	1.2 U	0.32 U
1,1-Dichloroethane	ug/l	0.24 U	0.13 U	0.12 U			0.12 U	0.12 U	0.13 U
1,1-Dichloroethene	ug/l	0.46 J	0.15 J	0.11 U			0.11 U	0.19 J	0.14 U
1,2-Dichloroethane	ug/l	0.36 U	0.22 U	0.18 U			0.18 U	0.18 U	0.22 U
1,3-Dinitrobenzene	ug/l	8.4 U	2.1 U	2.1 U			2.1 U	8.4 U	2.1 U
1,4-Dioxane	ug/l	0.32 U,J	3 U	0.32 U			0.32 U	1.69 J	3 U
2-Butanone	ug/l	7.6 U	3.2 U	3.8 U			3.8 U	3.8 U	3.2 U
Acetone	ug/l	7.4 U	5 U	3.7 U			3.7 U	3.7 U	5 U
Benzene	ug/l	0.2 U	0.11 U	0.1 U	***		0.1 U	0.1 U	0.11 U
Carbon tetrachloride	ug/l	0.24 U	0.15 U	0.12 U			0.12 U	0.12 U	0.15 U
Chloroform	ug/l	0.19 U	0.19 U	0.095 U			0.095 U	0.095 U	0.19 U
cis-1,2-Dichloroethene	ug/l	160	82	73			77	66	2.8
Ethylbenzene	ug/l	0.2 U	0.18 U	0.099 U			0.099 U	0.099 U	0.18 U
m,p-Xylenes	ug/i	0.38 U	0.69 U	0.19 U			0.19 J,B	0.19 U	0.69 U
Methylene chloride	ug/l	0.48 U	0.22 J,L	0.9 J,B,L			0.24 U	0.24 U	0.22 U
n-Nitrosodimethylamine	ng/l	17	22	11	8.8	19 J	15	21	1.3 J,B
Nitrobenzene	ug/l	9.6 U	3.2 U	3.2 U			3.2 U	9.6 U	3.2 U
o-Xylene	ug/l	0.2 U	0.14 U	0.1 U			0.1 U	0.1 U	0.14 U
Perchlorate	ug/l	1.5 U	0.43 U	0.43 U			0.43 U	1.5 U	0.43 U
Tetrachloroethene	ug/l	0.26 U	0.16 U	0.13 U			0.13 U	0.13 U	0.16 U
Toluene	ug/l	0.26 U	0.093 U	0.13 U			0.21 J,B	0.13 U	0.093 U
trans-1,2-Dichloroethene	ug/i	10	4	5.5			4.8	2.9	0.18 J
Trichloroethene	ug/l	220	32	27	t-	-	32	28	1.5
Trichlorofluoromethane	ug/l	0.42 U	0.17 U	0.21 U			0.21 U	0.21 U	0.17 U
Vinyl chloride	ug/l	4.6	2.7	1.8			2:5	2.2	0.21 U
Naturally Occurring Constituents									
Ammonia-N	mg/l	0.13 J	0.087 U	0.087 U			0.087 U	0.087 U	0.18 J
Fluoride	mg/l	0.48 J	0.31 J,B	0.4 J			0.38 JB	0.47 J	0.31 J,B
Formaldehyde	ug/l	20 U	5.8 J,B	28 J,B,L			32	20 U	6.4 J,B
Nitrate-N	mg/l	0.072 U	0.032 U	0.032 U			0.081 J	0.072 U	0.032 U
Laboratory		DMA	DMA	DMA	DMA	AmA	DMA	DMA	DMA

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TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		WS-05	WS-05	WS-05	WS-05	WS-06	WS-06	WS-06	WS-06
Sample Type		Primary	Primary	Primary	Split	Primary	Primary	Primary	Primary
FLUTe Sample Port		***							***
Sample Date	Units	05/07/02	08/13/02	11/05/02	11/05/02	03/07/02	05/08/02	08/14/02	11/13/02
Organic Constituents and Perchlorate									
1,1,1-Trichloroethane	ug/i	0.088 U	0.088 U	0.088 U		0.13 U	0.088 U	U 880.0	U 880.0
1,1,2-Trichloroethane	ug/l	0.21 U	0.21 U	0.21 U		0.31 U	0.21 U	0.21 U	0.21 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	1.2 U	1.2 U	1.2 U		0.32 U	1.2 U	1.2 U	1.2 U
1,1-Dichloroethane	ug/l	0.12 U	0.12 U	0.12 U		0.13 U	0.12 U	0.12 U	0.12 U
1,1-Dichloroethene	ug/l	,0.11 U	0.11 U	0.11 U	***	0.14 U	0.11 U	0.11 U	0.11 U
1,2-Dichloroethane	ug/l	0.18 U	0.18 U	0.18 U		0.22 U	0.18 U	0.18 U	0.18 U
1,3-Dinitrobenzene	ug/l	2.1 U	2.1 U	8.4 U		2.1 U	2.1 U	2.1 U	8.4 U
1,4-Dioxane	ug/l	0.32 U	0.32 U	5.86 J	2	3 U	0.32 U	0.32 U	3.86 B
2-Butanone	ug/l	3.8 U	3.8 U	3.8 U		3.2 U	3.8 U	3.8 U	3.8 U
Acetone	ug/l	3.7 U	3.7 U	6.6 J		5 U	3.7 U	3.7 U	3.7 U
Benzene	ug/l	0.1 U	0.1 U	0.1 U		0.11 U	0.1 U	0.1 U	0.1 U
Carbon tetrachloride	ug/l	0.12 U	0.12 U	0.12 U		0.15 U	0.12 U	0.12 U	0.12 U
Chloroform	ug/l	0.095 U	0.095 U	0.095 U		0.19 U	0.095 U	0.095 U	0.095 U
cis-1,2-Dichloroethene	ug/l	2.8	2.6	2.8		33	37	35	37
Ethylbenzene	ug/i	0.099 U	0.099 U	0.099 U		0.18 U	0.099 U	0.099 U	0.099 U
m,p-Xylenes	ug/l	0.19 U	0.19 U	0.19 U		0.69 U	0.19 U	0.19 U	0.19 U
Methylene chloride	ug/l	0.24 U	0.24 U	0.24 U		0.22 U	0.95 J,L	0.24 U	0.24 U
n-Nitrosodimethylamine	ng/l	2 U	2 U	0.5 U	***	1.8 J,B	2 U	2.2 J	0.5 U
Nitrobenzene	ug/l	3.2 U	3.2 U	9.6 U		3.2 U	3.2 U	3.2 U	9.6 U
o-Xylene	ug/l	0.1 U	0.1 U	0.1 U		0.14 U	0.1 U	0.1 U	0.1 U
Perchlorate	ug/l	0.43 U	0.43 U	1.5 U		0.43 U	0.43 U	0.43 U	1.5 U
Tetrachloroethene	ug/l	0.13 U	0.13 U	0.13 U		0.16 U	0.13 U	0.13 U	0.13 U
Toluene	ug/l	0.13 U	0.13 U	0.13 U		0.093 U	0.13 U	0.16 J,B	0.13 U
trans-1,2-Dichloroethene	ug/l	0.21 J	0.23 J	0.18 J		4.8	6	5.7	6.9
Trichloroethene	ug/l	1.5	1.5	1.4		5.2	6.2	5.5	3.3
Trichlorofluoromethane	ug/l	0.21 U	0.21 U	0.21 U		0.17 U	0.21 U	0.21 U	0.21 U
Vinyl chloride	ug/l	0.25 J	0.13 U	0.13 U		1.7	1.8	1.5	2
Naturally Occurring Constituents									
Ammonia-N	mg/l	0.087 U	0.37 J	0.092 J	***	0.087 U	0.087 U	0.087 U	0.087 U
Fluoride	mg/l	0.4 J	0.4 J	0.45 J,B		0.34 J,B	0.4 J	0.41 J,B	0.51
Formaldehyde	ug/l	17 J,B,L	30 U	20 U		6.2 J,B	32 J,B,L	31	20 U
Nitrate-N	mg/l	0.032 U	0.032 U	0.072 U		0.035 J	0.032 U	0.032 U	0.072 U
Laboratory		DMA							

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TABLE 12 SUMMARY OF ANALYSES FOR CONSTITUENTS OF CONCERN, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier		WS-09	WS-09	WS-09	WS-09	WS-09	WS-09
Sample Type		Primary	Primary	Dup	Split	Split	Primary
FLUTe Sample Port			***			****	
Sample Date	Units	07/23/02	11/06/02	11/06/02	11/06/02	11/06/02	11/21/02
Organic Constituents and Perchlorate							
1,1,1-Trichloroethane	ug/l	20 J	0.088 U	4.4 U		0.2 U	***
1,1,2-Trichloroethane	ug/l	10 U	0.21 U	10 U		0.2 U	20 U
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	120 J	1.2 U	60 U		0.2 U	
1,1-Dichloroethane	ug/l	6 U	0.12 U	6 U	the docum	0.2 U	
1,1-Dichloroethene	ug/l	72 ,	1.6	5.5 U	***	1.7	
1,2-Dichloroethane	ug/l	9 U	0.18 U	9 U	***	0.2 U	
1,3-Dinitrobenzene	ug/i	2.1 U	8.4 U				
1,4-Dioxane	ug/l	0.32 U	0.32 U		2.1		
2-Butanone	ug/l	190 U	3.8 U	190 U		7 U	***
Acetone	ug/l	190 J	3.7 U	180 U		3 U	
Benzene	ug/l	5 U	0.1 U	5 U		0.1 U	
Carbon tetrachloride	ug/l	34	0.12 U	6 U		0.3 U	
Chloroform	ug/l	270	0.095 U	4.8 U	***	0.2 U	
cis-1,2-Dichloroethene	ug/l	540	390	380		350	
Ethylbenzene	ug/l	5 U	0.099 U	5 U		0.2 U	
m,p-Xylenes	ug/l	9.5 U	0.19 U	9.5 U		0.3 U	***
Methylene chloride	ug/l	20 J	0.24 U	12 U		3 U	
n-Nitrosodimethylamine	ng/l	2.3	5.8	***			
Nitrobenzene	ug/l	3.2 U	9.6 U				***
o-Xylene	ug/l	5 U	0.1 U	5 U		0.2 U	***
Perchlorate	ug/l	0.43 U	1.5 U				
Tetrachloroethene	ug/l	6.5 U	0.13 U	6.5 U		0.2 U	
Toluene	ug/l	20 J	1	6.5 U		1.3	
trans-1,2-Dichloroethene	ug/l	7.5 J	6.4	6.5 U		6	22 U
Trichloroethene	ug/l	7500	4600	4700		4900	
Trichlorofluoromethane	ug/l	10 U	0.21 U	10 U		0.1 U	***
Vinyl chloride	ug/l	6.5 U	0.42 J	6.5 U		0.2 U	
Naturally Occurring Constituents							
Ammonia-N	mg/l	0.48 J	0.087 U				
Fluoride	mg/l	0.45 J,B	0.47 J,B			-	***
Formaldehyde	ug/l	300	20 U				
	ug/i						
Nitrate-N	mg/l	0.032 U DMA	0.072 U DMA	DMA	DMA	AmA	AmA

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FOOTNOTES AND EXPLANATIONS

AmA	=	American Analytics of Chatsworth, California.
DMA	=	Del Mar Analytical of Irvine, California.
()	=	Analysis not performed.
Comp	=	Composite sample. RD-10 samples were composited from FLUTe ports 3, 6, and 9.
Primary	=	Primary sample.
Dup	=	Sample duplicate.
Split	=	Sample split.
mg/l ug/l ng/l	=======================================	Milligrams per liter. Micrograms per liter. Nanograms per liter.
В	=	Analyte was detected in the associated method blank.
С	=	Possible carry-over contaminant.
HTV	=	Sample extracted past holding time.
J	=	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).
L	=	Laboratory contaminant.
Τ .	=	Tentatively identified compound.
U	=	Not detected; numerical value represents the Method Detection Limit for that compound.
V	=	Possible VOA vial contaminant.

Note:

Low-level 1,4-dioxane analyses were performed on primary samples by Ceimic Corporation using modified EPA method 8260 SIM. Split samples were analyzed by Del Mar Analytical using the same method.

Low-level N-nitrosodimethylamine analyses were performed by Weck Laboratories using modified EPA method 1625.

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Alfa ASU	WS-06	01/05/02	1932.72	NA		0*		(1)
		02/13/02	1932.72	417.73	1514.99	0*		
		03/13/02	1932.72	NA		0*	0*	(1)
		04/03/02	1932.72	NA		0*		(1)
	05/01/02	1932.72	413.52	1519.20	0*		` '	
		06/02/02	1932.72	NA		0*	0*	(1)
		07/02/02	1932.72	NA		0*		(1)
		08/07/02	1932.72	408.35	1524.37	0*		(1)
		09/03/02	1932.72	NA		0*	0*	(1)
		10/01/02	1932.72	NA		0*	-	(1)
		10/30/02	1932.72	404.35	1528.37	0*		、
		12/04/02	1932.72	NA		0*	0*	(1)
Area I Road	ES-01	01/01/02	1782.20	21.76	1760.44	0*		(2)
ASU		02/01/02	1782.20	22.25	1759.95	0*		(2)
		03/01/02	1782.20	22.67	1759.53	0*	0*	(2)
		04/04/02	1782.20	23.20	1759.00	0*		(2)
		04/29/02	1782.20	23.72	1758.48	0*		(2)
		06/03/02	1782.20	DRY		0*	0*	(2)
		07/05/02	1782.20	DRY		0*		(2)
		08/05/02	1782.20	DRY		0*		(2)
		09/05/02	1782.20	DRY		0*	0*	(2)
		10/04/02	1782.20	DRY		0*		(2)
		11/04/02	1782.20	DRY		0*		(2)
		12/04/02	1782.20	DRY		0*	0*	(2)
	ES-03	01/02/02	1783.39	23.10	1760.29	0*		(1)
		02/05/02	1783.39	24.10	1759.29	0*		(1)
		03/14/02	1783.39	24.12	1759.27	0*	0*	(1)
		04/04/02	1783.39	25.20	1758.19	0*		(1)
		04/29/02	1783.39	25.59	1757.80	0*		
		06/03/02	1783.39	DRY		0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Area I Road	ES-03	07/02/02	1783.39	DRY	===	0*		(1)
ASU - cont'd	cont'd	08/02/02	1783.39	DRY		0*		(1)
		09/03/02	1783.39	DRY		0*	.0*	(1)
		10/01/02	1783.39	DRY		0*		(1)
		11/05/02	1783.39	DRY		0*		(1)
		12/04/02	1783.39	DRY		0*	0*	(1)
	ES-04	01/02/02	1817.24	DRY		0*		(1)
		02/05/02	1817.24	DRY		0*		(1)
		03/13/02	1817.24	DRY		0*	0*	(1)
		04/04/02	1817.24	DRY	***	0*		(1)
		05/02/02	1817.24	DRY		0*		(1)
		06/02/02	1817.24	DRY		0*	0*	(1)
		07/02/02	1817.24	DRY		0*		(1)
		08/02/02	1817.24	DRY	***	0*		(1)
		09/03/02	1817.24	DRY		0*	0*	(1)
		10/01/02	1817.24	DRY	***	0*		(1)
		11/05/02	1817.24	DRY	***	0*		(1)
		12/04/02	1817.24	DRY		0*	0*	(1)
	ES-05	01/02/02	1818.13	DRY		0*		(1)
		02/05/02	1818.13	DRY		0*		(1)
		03/13/02	1818.13	DRY		0*	0*	(1)
		04/04/02	1818.13	DRY		0*		(1)
		05/02/02	1818.13	DRY		0*		(1)
		06/02/02	1818.13	DRY		0*	0*	(1)
		07/02/02	1818.13	DRY		0*		(1)
		08/02/02	1818.13	DRY	***	0*		(1)
		09/03/02	1818.13	DRY		0*	0*	(1)
		10/01/02	1818.13	DRY		0*		(1)
		11/05/02	1818.13	DRY		0*		(1)
		12/04/02	1818.13	DRY		0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Area I Road	ES-06	01/02/02	1825.41	19.70	1805.71	0*		(2)
ASU - cont'd		02/01/02	1825.41	20.38	1805.03	0*		(2)
		03/01/02	1825.41	20.74	1804.67	0*	0*	(2)
		04/04/02	1825.41	19.70	1805.71	0*		(2)
	04/29/02	1825.41	21.98	1803.43	0*		(2)	
		06/03/02	1825.41	22.26	1803.15	0*	0*	(2)
		07/05/02	1825.41	23.12	1802.29	0*		(2)
		08/05/02	1825.41	23.48	1801.93	0*		(2)
		09/05/02	1825.41	DRY		0*	0*	(2)
		10/04/02	1825.41	DRY		0*		(2)
		11/04/02	1825.41	DRY		0*		(2)
		12/04/02	1825.41	DRY		0*	0*	(2)
	ES-07	01/02/02	1826.53	24.10	1802.43	0*		(1)
		02/05/02	1826.53	DRY		0*		(1)
		03/13/02	1826.53	DRY		0*	0*	(1)
		04/04/02	1826.53	DRY		0*		(1)
		05/02/02	1826.53	DRY		0*		(1)
		06/02/02	1826.53	DRY		0*	0*	(1)
		07/02/02	1826.53	DRY	***	0*		(1)
		08/02/02	1826.53	24.42	1802.11	0*		(1)
		09/03/02	1826.53	DRY		0*	0*	(1)
		10/01/02	1826.53	DRY		0*		(1)
		11/05/02	1826.53	DRY		0*		(1)
		12/04/02	1826.53	DRY		0*	0*	_(1)
	RD-01	01/03/02	1935.89	213.50	1722.39	0*		(1)
		02/05/02	1935.89	216.63	1719.26	0*		(1)
		03/13/02	1935.89	213.50	1722.39	0*	0*	(1)
		04/04/02	1935.89	212.10	1723.79	0*		(1)
		05/08/02	1935.89	209.97	1725.92	0*		(1)
		06/02/02	1935.89	208.80	1727.09	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Area I Road	RD-01	07/02/02	1935.89	209.62	1726.27	0*		(1)
ASU - cont'd	cont'd	08/02/02	1935.89	210.22	1725.67	0*		(1)
		09/03/02	1935.89	214.60	1721.29	0*	0*	(1)
		10/01/02	1935.89	205.20	1730.69	0*		(1)
		11/05/02	1935.89	204.98	1730.91	0*		(1)
		12/04/02	1935.89	205.28	1730.61	0*	0*	(1)
	RD-02	01/02/02	1873.92	177.30	1696.62	0*		(1)
		02/05/02	1873.92	179.02	1694.90	0*		(1)
		03/13/02	1873.92	179.00	1694.92	0*	0*	(1)
		04/04/02	1873.92	178.12	1695.80	0*		(1)
		05/02/02	1873.92	177.60	1696.32	0*		(1)
		06/02/02	1873.92	177.20	1696.72	0*	0*	(1)
		07/02/02	1873.92	177.08	1696.84	0*		(1)
		08/02/02	1873.92	178.11	1695.81	0*		(1)
		09/03/02	1873.92	181.44	1692.48	0*	0*	(1)
		10/01/02	1873.92	176.15	1697.77	0*		(1)
		11/05/02	1873.92	176.31	1697.61	0*		(1)
		12/04/02	1873.92	177.20	1696.72	0*	0*	(1)
Bravo ASU	ES-21	01/01/02	1769.62	25.04	1744.58	0*		(2)
		02/01/02	1769.62	25.26	1744.36	0*		(2)
		03/01/02	1769.62	NA		0*	0*	(2)
		04/04/02	1769.62	26.39	1743.23	0*		(2)
		04/30/02	1769.62	26.94	1742.68	0*		(2)
		06/03/02	1769.62	27.66	1741.96	0*	0*	(2)
		07/05/02	1769.62	28.43	1741.19	0*		(2)
		08/05/02	1769.62	29.14	1740.48	0*		(2)
		09/05/02	1769.62	29.76	1739.86	0*	0*	(2)
		10/04/02	1769.62	30.26	1739.36	0*		(2)
		11/04/02	1769.62	30.69	1738.93	0*		(2)
		12/04/02	1769.62	30.96	1738.66	0*	0*	(2)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Bravo ASU -	ES-22	01/03/02	1770.93	25.80	1745.13	0*		(1)
cont'd		02/07/02	1770.93	26.46	1744.47	0*		(1)
	•	03/15/02	1770.93	27.00	1743.93	0*	0*	(1)
		04/02/02	1770.93	27.25	1743.68	0*		(1)
		05/01/02	1770.93	27.92	1743.01	0*		(1)
		06/02/02	1770.93	28.70	1742.23	0*	0*	(1)
		07/02/02	1770.93	24.60	1746.33	0*		(1)
		08/02/02	1770.93	25.22	1745.71	0*		(1)
		09/03/02	1770.93	29.44	1741.49	0*	0*	(1)
		10/01/02	1770.93	28.31	1742.62	0*		(1)
		11/05/02	1770.93	28.64	1742.29	0*		(1)
		12/04/02	1770.93	29.73	1741.20	0*	0*	(1)
	RD-04	01/03/02	1883.85	NA	***	0*		(1)
		02/19/02	1883.85	379.74	1504.11	0*		
		03/15/02	1883.85	NA		0*	0*	(1)
		04/02/02	1883.85	NA		0*		(1)
		05/01/02	1883.85	368.63	1515.22	0*		
		06/02/02	1883.85	NA		0*	0*	(1)
		07/02/02	1883.85	NA		0*		(1)
		08/07/02	1883.85	360.65	1523.20	0*		
		09/03/02	1883.85	NA		0*	0*	(1)
		10/01/02	1883.85	NA	primite .	0*		(1)
		10/30/02	1883,85	355.51	1528.34	0*		-
		12/04/02	1883.85	NA	***	0*	0*	(1)
	RD-09	01/03/02	1768.20	25.60	1742.60	0* . *		(1)
		02/07/02	1768.20	26.46	1741.74	0*		(1)
		03/15/02	1768.20	27.00	1741.20	0*	0*	(1)
		04/02/02	1768.20	27.38	1740.82	0*		(1)
		05/01/02	1768.20	27.88	1740.32	0*		(1)
		06/02/02	1768.20	28.70	1739.50	0* .	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Bravo ASU -	RD-09	07/02/02	1768.20	28.40	1739.80	0*		(1)
cont'd	cont'd	08/02/02	1768.20	29.31	1738.89	0*		(1)
		09/03/02	1768.20	28.81	1739.39	0*	0*	(1)
		10/01/02	1768.20	31.00	1737.20	0*		(1)
		11/05/02	1768.20	31.44	1736.76	0*		(1)
		12/04/02	1768.20	32.68	1735.52	0*	0*	(1)
	WS-09	01/04/02	1883.99	NA	***	11.3		
		02/06/02	1883.99	474.00	1409.99	11.6		(1)
		03/15/02	1883.99	447.50	1436.49	5.0	9.0	(1)
		04/02/02	1883.99	441.05	1442.94	6.2		(1)
		05/01/02	1883.99	377.68	1506.31	0.3		(1)
		06/02/02	1883.99	367.00	1516.99	0.1	2.2	(1)
		07/02/02	1883.99	362.30	1521.69	0.17		(1)
		08/02/02	1883.99	363.12	1520.87	0*		(1)
		09/03/02	1883.99	361.48	1522.51	0*	0*	(1)
		10/01/02	1883.99	357.11	1526.88	0*		(1)
		11/05/02	1883.99	358.26	1525.73	0*		(1)
		12/04/02	1883.99	358.87	1525.12	0*	0*	(1)
Delta ASU	HAR-07	01/04/02	1728.38	81.60	1646.78	0.07		(1)
		02/06/02	1728.38	80.70	1647.68	0.06		(1)
		03/08/02	1728.38	80.40	1647.98	0.06	0.06	(1)
		04/03/02	1728.38	80.45	1647.93	0.06		(1)
		05/01/02	1728.38	80.68	1647.70	0.05		(1)
		06/02/02	1728.38	79.70	1648.68	0.04	0.05	(1)
		07/02/02	1728.38	80.20	1648.18	0.04		(1)
		08/02/02	1728.38	80.64	1647.74	0.03		(1)
		09/03/02	1728.38	80.15	1648.23	0.02	0.03	(1) (P)
		10/01/02	1728.38	79.95	1648.43	0.02		(1)
		11/05/02	1728.38	80.04	1648.34	0.02		(1)
		12/04/02	1728.38	80.15	1648.23	0.03	0.02	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
Delta ASU	WS-09A	01/03/02	1647.61	NA		101		
cont'd		02/12/02	1647.61	38.81	1608.80	65.6		(1) (P)
-		03/08/02	1647.61	36.10	1611.51	67	76	(1) (P)
		04/02/02	1647.61	36.71	1610.90	71		(1) (P)
		05/01/02	1647.61	41.81	1605.80	72		(1)
		06/02/02	1647.61	40.20	1607.41	62	67	(1)
		07/02/02	1647.61	53.40	1594.21	49.70		(1)
		08/02/02	1647.61	54.61	1593.00	49.90		(1)
		09/03/02	1647.61	55.61	1592.00	41.30	46.7	(1)
		10/01/02	1647.61	56.55	1591.06	38.6		(1) (P)
		11/05/02	1647.61	56.38	1591.23	17.9		(1) (P)
		12/04/02	1647.61	58.42	1589.19	48.5	25.6	(1) (P)
STL-IV ASU	ECL FD	01/03/02		8.70		0*		(1)
		02/05/02	***	10.41		0*		(1)
		03/14/02		11.40		0*	0*	(1)
		04/02/02		DRY		0*		(1)
		05/01/02		DRY		0*		(1)
		06/02/02		DRY		0*	0*	(1)
		07/02/02		DRY		0*		(1)
		08/02/02		DRY		0*		(1)
		09/03/02		DRY		0*	0*	(1)
		10/01/02	***	DRY		0*		(1)
		11/05/02		DRY		0*		(1)
		12/04/02	time to	DRY		0*	0*	(1)
	ECL Sump	01/03/02		8.70		0* · .		(1)
		02/05/02		8.95		0*		(1)
		03/14/02	***	9.45		0*	0*	(1)
		04/02/02		9.80		0*		(1)
		05/01/02		10.18		0*		(1)
		06/02/02		9.70	===	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
STL-IV ASU	ECL Sump	07/02/02		9.70		0*		(1)
ont'd	cont'd	08/02/02	***	8.55		0*		(1)
		09/03/02		8.42		0*	0*	(1)
	10/01/02		DRY		0*		(1)	
	11/05/02		DRY		0*		(1)	
	12/04/02		DRY		0*	0*	(1)	
	ES-14	01/04/02	1728.69	DRY		0*		(1)
		02/11/02	1728.69	24.49	1704.20	0*		
		03/15/02	1728.69	DRY		0*	0*	(1)
		04/02/02	1728.69	24.57	1704.12	0*		(1)
		05/01/02	1728.69	24.74	1703.95	0*		(1)
		06/02/02	1728.69	DRY	***	0*	0*	(1)
		07/02/02	1728.69	DRY		0*		(1)
		08/02/02	1728.69	DRY		0*		(1)
		09/03/02	1728.69	DRY	***	0*	0*	(1)
		10/01/02	1728.69	DRY		0*		(1)
		10/29/02	1728.69	DRY		0*		
		12/04/02	1728.69	DRY		0*	0*	(1)
	ES-17	01/04/02	1739.31	19.00	1720.31	0*		(1)
		02/06/02	1739.31	17.46	1721.85	0*		(1)
		03/14/02	1739.31	17.45	1723.61	0*	0*	(1)
		04/02/02	1739.31	17.85	1721.46	0*		(1)
		05/01/02	1739.31	19.76	1719.55	0*		(1)
		06/02/02	1739.31	22.50	1716.81	0*	0*	(1)
		07/02/02	1739.31	24.72	1714.59	0* .		(1)
		08/02/02	1739.31	24.64	1714.67	0*		(1)
		09/03/02	1739.31	25.16	1714.15	0*	0*	(1)
		10/01/02	1739.31	28.68	1710.63	0*		(1)
		11/05/02	1739.31	28.71	1710.60	0*		(1)
		12/04/02	1739.31	28.65	1710.66	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
STL-IV ASU	ES-23	01/03/02	1760.73	9.60	1751.13	0*		(1)
cont'd		02/05/02	1760.73	9.94	1750.79	0*		(1)
		03/15/02	1760.73	10.10	1750.63	0*	0*	(1)
	04/02/02	1760.73	10.30	1750.43	0*		(1)	
		05/01/02	1760.73	10.68	1750.05	0*		(1)
		06/02/02	1760.73	11.20	1749.53	0*	0*	(1)
		07/02/02	1760.73	11.60	1749.13	0*		(1)
		08/02/02	1760.73	12.16	1748.57	0*		(1)
		09/03/02	1760.73	13.81	1746.92	0*	0*	(1)
		10/01/02	1760.73	13.20	1747.53	0*		(1)
		11/05/02	1760.73	13.40	1747.33	0*		(1)
•		12/04/02	1760.73	13.66	1747.07	0*	0*	(1)
	ES-24	01/04/02	1728.67	27.28	1701.39	0*		(2)
		02/01/02	1728.67	27.08	1701.59	0*		(2)
		03/01/02	1728.67	27.11	1701.56	0*	0*	(2)
		04/04/02	1728.67	DRY		0*		(2)
		05/01/02	1728.67	27.65	1701.02	0*		(2)
		06/03/02	1728.67	DRY		0*	0*	(2)
		07/05/02	1728.67	ĎRY		0*		(2)
		08/05/02	1728.67	DRY		0*		(2)
		09/05/02	1728.67	DRY		0*	0*	(2)
		10/04/02	1728.67	DRY		0*		(2)
		11/04/02	1728.67	DRY		0*		(2)
		12/04/02	1728.67	DRY		0*	0*	(2)
	ES-26	01/04/02	1748.01	17.50	1730.51	0*		(1)
		02/06/02	1748.01	16.61	1731.40	0*		(1)
		03/14/02	1748.01	16.95	1731.06	0*	0*	(1)
		04/02/02	1748.01	17.50	1730.51	0*		(1)
		05/01/02	1748.01	19.00	1729.01	0*		(1)
		06/02/02	1748.01	21.40	1726.61	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
STL-IV ASU	ES-26	07/02/02	1748.01	23.70	1724.31	0*		(1)
cont'd	cont'd	08/02/02	1748.01	24.20	1723.81	0*		(1)
		09/03/02	1748.01	26.33	1721.68	0*	0*	(1)
		10/01/02	1748.01	29.95	1718.06	0*		(1)
	11/05/02	1748.01	30.11	1717.90	0*		(1)	
	12/04/02	1748.01	30.58	1717.43	0*	0*	(1)	
	ES-27	01/04/02	1740.67	20.20	1720.47	0*		(1)
		02/06/02	1740.67	18.51	1722.16	0*		(1)
		03/14/02	1740.67	18.15	1724.37	0*	0*	(1)
		04/02/02	1740.67	18.61	1722.06	0*		(1)
•		05/01/02	1740.67	20.25	1720.42	0*		(1)
		06/02/02	1740.67	22.50	1718.17	0*	0*	(1)
		07/02/02	1740.67	24.20	1716.47	0*		(1)
		08/02/02	1740.67	24.64	1716.03	0*		(1)
		09/03/02	1740.67	24.95	1715.72	0* ~	0*	(1)
		10/01/02	1740.67	28.41	1712.26	0*		(1)
		11/05/02	1740.67	28.68	1711.99	0*		(1)
		12/04/02	1740.67	28.77	1711.90	0*	0*	(1)
	ES-30	01/03/02	1759.51	20.40	1739.11	0*		(1)
		02/05/02	1759.51	10.50	1749.01	0*		(1)
	•	03/15/02	1759.51	10.65	1749.21	0*	0*	(1)
		04/02/02	1759.51	10.70	1748.81	0*		(1)
		05/01/02	1759.51	11.00	1748.51	0*		(1)
		06/02/02	1759.51	11.40	1748.11	0*	0*	(1)
		07/02/02	1759.51	11.90	1747.61	0*		(1)
		08/02/02	1759.51	12.21	1747.30	0*		(1)
		09/03/02	1759.51	13.11	1746.40	0*	0*	(1)
		10/01/02	1759.51	14.16	1745.35	0*		(1)
		11/05/02	1759.51	14.10	1745.41	0*		(1)
		12/04/02	1759.51	15.05	1744.46	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
STL-IV ASU	ES-32	01/04/02	1740.65	DRY		0*		(1)
cont'd		02/06/02	1740.65	21.77	1718.88	0*		(1)
		03/14/02	1740.65	21.50	1719.15	0*	0*	(1)
		04/02/02	1740.65	21.57	1719.08	0*		(1)
		05/01/02	1740.65	DRY		0*		(1)
		06/02/02	1740.65	DRY		0*	0*	(1)
		07/02/02	1740.65	DRY		0*		(1)
		08/02/02	1740.65	DRY		0*		(1)
		09/03/02	1740.65	DRY		0*	0*	(1)
		10/01/02	1740.65	DRY	********	0*		(1)
		11/05/02	1740.65	DRY		0*		(1)
		12/04/02	1740.65	DRY		0*	0*	(1)
	HAR-17	01/04/02	1711.59	81.00	1632.59	0.20		(1) (P)
		02/06/02	1711.59	79.00	1632.59	0.32		(1)
		03/15/02	1711.59	79.00	1632.59	0.25	0.24	(1)
		04/02/02	1711.59	80.50	1632.59	0.25		(1) (P)
		05/01/02	1711.59	47.20	1664.39	0.21		(1)
		06/02/02	1711.59	75.70	1635.89	0.23	0.23	(1)
		07/02/02	1711.59	81.65	1629.94	0.25		(1) (P)
		08/02/02	1711.59	80.90	1630.69	0.25		(1) (P)
		09/03/02	1711.59	81.30	1630.29	0.12	0.21	(1) (P)
		10/01/02	1711.59	55.12	1656.47	0.11		(1)
		11/05/02	1711.59	56.35	1655.24	0*		(1)
		12/04/02	1711.59	58.88	1652.71	0*	0*	(1)
	HAR-18	01/04/02	1749.41	62.30	1686.41	0.1		(1)
		02/06/02	1749.41	59.00	1690.41	0.15		(1)
		03/14/02	1749.41	27.45	1721.96	0.12	0.1	(1)
		04/02/02	1749.41	58.75	1686.41	0.12		(1) (P)
		05/01/02	1749.41	63.69	1685.72	0.06		(1)
		06/02/02	1749.41	54.20	1695.21	0.13	0.1	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
STL-IV ASU	HAR-18	07/02/02	1749.41	63.86	1685.55	0.15		(1) (P)
cont'd	cont'd	08/02/02	1749.41	62.85	1686.56	0.15		(1) (P)
		09/03/02	1749.41	61.96	1687.45	0.08	0.13	(1) (P)
		10/01/02	1749.41	44.15	1705.26	0.05		(1)
		11/05/02	1749.41	44.96	1704.45	0.02		(1)
		12/04/02	1749.41	48.36	1701.05	0*	0*	(1)
NS-05	ES-11	01/02/02	1835.07	DRY		0*		(1)
JV/H2O2		02/12/02	1835.07	DRY	***	0*		• •
		03/13/02	1835.07	DRY		0*	0*	(1)
		04/04/02	1835.07	DRY		0*		(1)
		05/02/02	1835.07	DRY		0*		
		06/02/02	1835.07	DRY	philipson and the second and the sec	0*	0*	(1)
		07/02/02	1835.07	DRY		0*		(1)
		08/02/02	1835.07	DRY		0*		(1)
		09/03/02	1835.07	DRY		0*	0*	(1)
		10/01/02	1835.07	DRY		0*		(1)
		10/29/02	1835.07	DRY		0*		
		12/04/02	1835.07	DRY		0*	0*	(1)
	HAR-04	01/04/02	1873.40	20.30	1853.10	0*		(1)
		02/05/02	1873.40	20.41	1852.99	0*		(1)
		03/08/02	1873.40	21.20	1852.20	0*	0*	(1)
		04/04/02	1873.40	21.45	1851.95	0* `		(1)
		05/02/02	1873.40	20.85	1852.55	0*		(1)
		06/02/02	1873.40	21.60	1851.80	0*	0*	(1)
		07/02/02	1873.40	21.80	1851.60	0*		(1)
		08/02/02	1873.40	21.60	1851.80	0*		(1)
		09/03/02	1873.40	22.35	1851.05	0*	0*	(1)
		10/01/02	1873.40	21.98	1851.42	0*		(1)
		11/05/02	1873.40	21.51	1851.89	0*		(1)
		12/04/02	1873.40	21.38	1852.02	0*	0*	(1)

TABLE 13
SUMMARY OF EXTRACTION WELL WATER LEVELS AND FLOW RATES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Treatment System	Extraction Well	Water Level Measurement Date	Measuring Point Elevation (ft, MSL)	Depth to Water (feet)	Water Level Elevation (ft, MSL)	Average Monthly Flow Rate (gpm)	Average Quarterly Flow Rate (gpm)	Footnotes
WS-05	HAR-16	01/03/01	1872.31	NA**	444	0*		
UV/H2O2 - cont'd		02/12/02	1872.31	NA**		0*		
		03/08/02	1872.31	NA**		0*	0*	
		04/04/02	1872.31	NA**		0*		
		05/02/02	1872.31	NA**		0*		
		06/02/02	1872.31	.NA**	****	0*	0*	
		07/02/02	1872.31	NA**		0*		
		08/06/02	1872.31	NA**		0*		
		09/03/02	1872.31	NA**		0*	0*	
		10/01/02	1872.31	NA**		0*		
		10/30/02	1872.31	NA**		0*		
		12/04/02	1872.31	NA**	***	0*	0*	
	WS-05	01/03/01	1830.20	308.70	1521.50	0*		(1)(C)
		02/05/02	1830.20	310.00	1520.20	0*		(1)(C)
		03/13/02	1830.20	307.90	1522.30	0*	0*	(1)(C)
		04/04/02	1830.20	307.26	1522.94	0*		(1)(C)
	•	05/02/02	1830.20	305.08	1525.12	0*		(1)(C)
		06/02/02	1830.20	203.30	1626.90	0*	0*	(1)(C)
		07/02/02	1830.20	302.25	1527.95	0*		(1)(C)
		08/02/02	1830.20	303.13	1527.07	0*		(1)(C)
		09/03/02	1830.20	298.40	1531.80	0*	0*	(1)(C)
		10/01/02	1830.20	297.00	1533.20	0*		(1)(C)
		11/05/02	1830.20	297.33	1532.87	0*		(1)(C)
		12/04/02	1830.20	298.75	1531.45	0*	0*	(1)(C)

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(C)	=	Depth to water measured from top of casing. During the monitoring period, pumps had been removed from several wells to allow hydrogeologic testing.
(P)	=	Pumping water level.
NA	=	Not available. Well was not monitored or transducer was inoperable.
MSL	. =	Mean sea level.
()	=	No data available/not applicable.
(1)	=	Water level measured by EnviroSolve Corporation.
(2)	=	Water level measured by Montgomery Watson.
(*)	=	Several extraction wells were inactive due to ongoing Shallow Zone Groundwater Investigation (Ogden, 2000) and the Chatsworth Formation Operable Unit Investigation (Montgomery Watson, 2000b).
(**)	=	Well is currently equipped with a FLUTe discrete interval monitoring system.
ASU	=	Air stripping unit.
UV/H2O2	=	Ultraviolet light/ peroxidation.

Remediatio	n System	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Annual	Total
Extraction \	Well(s)					(gallons x 1,0	000)					<u> </u>	Pumpage	
Delta ASU	WS-9A	4,498.9	2,927.3	2,413.1	3,047.9	3,090.1	2,696.2	2,220.4	2,229.5	1,666.5	773.0	2095.3	452.5	28110.7	407138.7
	HAR-7	3.1	2.8	2.3	2.5	2.1	1.7	1.6	1.4	8.0	0.9	1.1	0.0	20.3	2789.2
Alfa ASU	WS-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	510871.8
Bravo ASU	WS-9	505.9	517.3	143.0	268.8	11.5	3.7	7.5	0.0	0.0	0.0	0.0	0.0	1457.7	62693.5
	RD-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	40362.9
	RD-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6106.3
	ES-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	461.9
	ES-22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	682.8
Area I Road	RD-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	80122.6
ASU	RD-2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	71702.1
	ES-1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	60.4
	ES-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	987.6
	ES-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	425.6
	ES-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0,0	0.0	0.0	0.0	308.5
	ES-6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	882.5
	ES-7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.3
WS-5 Area	WS-5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	540394.8
UV/H ₂ O ₂	ES-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.1
	HAR-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	765.4
	HAR-16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1028.1
STL-IV	ES-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.3
ASU	ES-17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	277.1
	ES-23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	127.7
	ES-24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.8
	ES-26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2430.4
	ES-27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	368.1
	ES-30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1825.4
	ES-32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.7
	HAR-17	9.8	14.6	6.4	11.0	9.0	10.0	11.2	11.0	4.8	5.5	• 0.0	0.0	93.3	3091.7
	HAR-18	4.4	6.8	3.2	5.2	2.4	5.5	6.8	6.6	3.4	2.7	0.6	0.0	47.6	678.7
	ECL Sump	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1061.0
	ECL FD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2792.7
Total Syste	m	5,022.1	3,468.8	2,568.0	3,335.4	3,115.1	2,717.1	2,247.5	2,248.5	1,675.5	782.1	2097.0	452.5	29729.6	1740730.7

ASU = Air stripping unit

UV/H2O2 = Ultraviolet light/peroxidation

NOTES: Remediation system monitoring conducted by EnviroSolve Corporation. Pumpage data and cumulative pumpage provided by EnviroSolve Corporation.

Several extraction wells were inactive due to ongoing Shallow Zone Groundwater Investigation (Ogden, 2000) and Chatsworth Formation Operable Unit Investigation (Montgomery Watson, 2000b).

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Interim	System	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Annual
Extraction	on Well(s)					(ga	llons x 1,000)							Pumpage
RMHF	RD-63	63.6	45.1	32.9	26.2	24.8	8.3	6.1	9.2	2.9	2.9	3.5	2.1	227.6
FSDF	RS-54	0.00	0.00	7.85	0.11	0.11	0.07	0.09	0.06	0.05	0.07	0.06	0.06	8.53
	RD-21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B/059	RD-24	26.8	2.6	5.0	38.3	36.5	27.8	16.5	7.0	19.4	23.2	27.1	12.6	242.8
	RD-25	11.1	9.7	7.8	8.1	8.9	8.0	10.0	4.0	8.2	7.3	7.1	4.4	94.6
	RD-28	8.0	0.8	7.8	7.3	7.4	6.5	8.1	3.2	5.5	5.8 ·	8.9	3.6	65.7
	S-2 Sump	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	B/056 Pit	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	. 0.0	0.0	0.0	0.0
Total Inf	terim System	102.3	58.2	61.4	80.0	77.7	50.7	40.8	23.5	36.1	39.3	46.7	22.8	639.2

Note: Remediation system monitoring conducted by EnviroSolve Corporation. Pumpage data and cumulative pumpage provided by EnviroSolve Corporation.

TABLE 16
SUMMARY OF WATER QUALITY RESULTS FOR
PERMITTED GROUNDWATER REMEDIATION FACILITIES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

				1,2-D	CE (ug/l)			VOCs R	emoved
Sample	Location	Date Sampled	TCE (ug/l)	cis	trans	Perchlorate (ug/l)	SVOCs (ug/l)	By Quarter (lbs)	To Date** (lbs)
Delta ASU	Influent	01/03/02	8.4	8.6	0.5 U	4 U			1242.0
		02/06/02	14	14	1.0 U	4 U]	1243.1
	į	03/08/02	13	18	1.0 U		ND	1.8	1243.8
ľ		04/03/02	17	20	1.0 U	4 U			1244.6
	ł	05/01/02	25	27	0.75	4 U			1245.9
	}	06/04/02	72	42	5.0 U	4 U	ND	4.8	1248.6
		07/02/02	140	72	5.0 U	4 U	ND		1253.7
		08/01/02	22	37	1.0 U	4 U	ND_		1254.5
1		09/05/02	590	250	7.2	4 U	ND	25.8	1274.4
		10/03/02	<u>-</u> -		Not Operating				1274.4
ł		11/06/02	470	230	12 U	4 U	ND		1279.0
		12/04/02	17	24	1.0 U	4 U	ND	5.3	1279.7
	Primary	01/03/02	0.73	0.97	0.5 U				
	Effluent	02/06/02	0.5 U	1.5	0.5 U			1	
1	l	03/08/02	0.5 U	0.98	0.5 U				
		04/03/02	0.5 U	1.0	0.5 U				
		05/01/02	0.5 U	1.2	0.5 U				
j]	06/04/02	0.62	1.6	0.5 U			j	
		07/02/02	1.4	2.4	0.5 U				
	l	08/01/02	0.55	1.6	0.5 U 0.5 U				
		09/05/02 10/03/02	1.9	3.5	Not Operating				
	l	11/06/02	1.7	3.3	0.5 U			}	
l		12/04/02	5.2	4.4	0.5 U				
	Secondary	01/03/02	0.5 U	0.5 U	0.5 U				
ļ	Effluent	02/06/02	0.5 U	0.5 U	0.5 U				
	Lindonk	03/08/02	0.5 U	0.5 U	0.5 U				
		04/03/02	0.5 U	0.5 U	0.5 U				
		05/01/02	0.5 U	0.5 U	0.5 U				
1		06/04/02	0.5 U	0.5 U	0.5 U				
1		07/02/02	0.5 U	0.5 U	0.5 U				
		08/01/02	0.5 U	0.5 U	0.5 U				
	1	09/05/02	0.91	1.2	0.5 U				
ł	1	10/03/02	L		Not Operating				
	ļ	11/06/02	0.58	1.0	0.5 U			1	
L	L	12/04/02	4.5	4	0.5 U				·
Alfa ASU	Influent	01/03/02							460.2
	1	02/06/02						•	460.2
		03/08/02						0.0	460.2
		04/03/02							460.2
	ļ	05/01/02							460.2
		06/04/02			Not Operating*			0.0	460.2
	1	07/02/02						1	460.2
1		08/02/02							460.2
l	i	09/03/02						0.0	460.2
l	ſ	10/03/02						1	460.2
	1	11/06/02						1 00	460.2 460.2
]	Prime :	12/04/02						0.0	400.2
1	Primary Effluent	01/03/02 02/06/02						1	
1	Lindent	03/08/02			Not Operating*			1	
		04/03/02			Not Operating				
1	1	05/01/02						ļ	
L	<u> </u>	1 00/01/02						<u> </u>	<u> </u>

TABLE 16
SUMMARY OF WATER QUALITY RESULTS FOR
PERMITTED GROUNDWATER REMEDIATION FACILITIES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

			Į.	1,2-0	CE (ug/l)		· · · · · · · · · · · · · · · · · · ·	VOCs R	emoved
Sample	Location	Date Sampled	TCE (ug/l)	cis	trans	Perchlorate (ug/l)	SVOCs (ug/l)	By Quarter (ibs)	To Date** (lbs)
Alfa ASU	Primary Effluent	06/04/02 07/02/02 08/02/02 09/03/02 10/03/02 11/06/02 12/04/02			Not Operating*				
	Secondary Effluent	01/03/02 02/06/02 03/08/02 04/03/02 05/01/02 06/04/02 07/02/02 08/02/02 09/03/02 11/06/02			Not Operating*				
Bravo ASU	Influent	12/04/02 01/04/02 02/06/02 03/08/02 04/03/02 05/01/02	85 79 72 130	5.5 6.2 6 9.3	5.0 U 5.0 U	 	ND ND ND]	125.2 125.5 125.9 126.1
		06/04/02 07/02/02 08/02/02 09/03/02 10/03/02			Not Operating*			0.2	126.1 126.1 126.1 126.1 126.1 126.1
	Primary Effluent	11/06/02 12/04/02 01/04/02 02/06/02 03/08/02 04/03/02 05/01/02	0.71 0.71 1.1 2.8	0.5 U 0.5 U 0.5 U 1.0	0.5 U 0.5 U			0.0	126.1 126.1
		06/04/02 07/02/02 08/02/02 09/03/02 10/03/02 11/06/02			Not Operating*				
	Secondary Effluent	12/04/02 01/04/02 02/06/02 03/08/02 04/03/02 05/01/02	0.62 0.68 0.95 1.6	0.5 U 0.5 U 0.5 U 0.52	0.5 U 0.5 U				
		06/04/02 07/02/02 08/02/02 09/03/02			Not Operating*				

TABLE 16
SUMMARY OF WATER QUALITY RESULTS FOR
PERMITTED GROUNDWATER REMEDIATION FACILITIES, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

				1,2-E		VOCs R	emoved		
Sample	Location	Date Sampled	TCE (ug/l)	cis	trans	Perchlorate (ug/l)	SVOCs (ug/l)	By Quarter (lbs)	To Date** (lbs)
Bravo ASU	Secondary	10/03/02				· · · · · · · · · · · · · · · · · · ·			
	Effluent	11/06/02							
		12/04/02		· · · · · · · · · · · · · · · · · · ·					
WS-5	Influent	01/04/02				225.0			
UV/H ₂ O ₂		02/06/02				225.0			
		03/08/02			0.0	225.0			
	}	04/03/02 05/01/02) •.	225.0 225.0			
	l	06/04/02			0.0	225.0			
	ŀ	07/02/02			0.0	225.0			
		08/02/02				225.0			
		09/03/02			0.0	225.0			
		10/03/02				225.0			
		11/06/02				225.0			
ì		12/04/02						0.0	225.0
	Effluent	01/04/02							
	1	02/06/02							
ļ		03/08/02							
	ł	04/03/02			1				
		05/01/02 06/04/02			Not Operating*				
		07/02/02			Not Operating				
	ļ	08/02/02							
		09/03/02							
		10/03/02							
		11/06/02			•				
	ł	12/04/02							
STL-IV	Influent	01/04/02	500	130		4 U	ND		78.6
ASU		02/06/02	2200	660		4 U	ND		78.9
-		03/08/02	3400	1100			ND		79.5
		04/03/02	2300	730		4 U	ND		79.8
		05/01/02	2500	820		4 U	ND		80.2 80.5
		06/04/02 07/02/02	2700 2600	1000 980		4 U 4 U	ND ND		80.8
		08/01/02	590	150			ND		80.9
		09/05/02	1700	660			ND		81.1
	Ì	10/03/02	2700	1100		4 U	ND		81.4
		11/06/02	2500	1000			ND		81.6
		12/04/02			Not Operating			0.5	81.6
	Primary	01/04/02	0.5 U	0.5 U					
	Effluent	02/06/02	13	4.5					
		03/08/02	0.82	0.5			i		
		04/03/02	0.5 U	0.5 U					
		05/01/02	0.5 U	0.5 U				1	
		06/04/02 07/02/02	0.5 U 0.5 U	0.5 U 0.5 U				}	
		08/01/02	0.5 U	0.5 U					
		09/05/02	0.5 U	0.5 U					
		10/03/02	2.4	0.99				1	
		11/06/02	0.5 U	0.5 U]	
	1	12/04/02			Not Operating				

SUMMARY OF WATER QUALITY RESULTS FOR PERMITTED GROUNDWATER REMEDIATION FACILITIES, 2002 Boeing Santa Susana Field Laboratory Ventura County, California

				1,2-D	CE (ug/l)			VOCs R	emoved
Sampl	e Location	Date Sampled	TCE (ug/l)	cis	trans	Perchiorate (ug/l)	SVOCs (ug/l)	By Quarter (lbs)	To Date** (lbs)
STL-IV	Secondary	01/04/02	1.0 U	1.0 U	1.0 U				
ASU	Effluent	02/06/02	0.5 U	0.5 U	0.5 U	1			
		03/08/02	0.5 U	0.5 U	0.5 U	1			
		04/03/02	0.5 U	0.5 U	0.5 U				
	1	05/01/02	0.5 Ú	0.5 U	0.5 U]			
1		06/04/02	0.5 U	0.5 U	0.5 U]		1	
		07/02/02	0.5 U	0.5 U	0.5 U	i i		1	
		08/01/02	0.5 U	0.5 U	0.5 U			}	
İ	1	09/05/02	0.5 U	0.5 U	0.5 U			i .	
`		10/03/02	0.5 U	0.5 U	0.5 U	1		1	
		11/06/02	0.5 U	0.5 U	0.5 U				
		12/04/02			Not Operating			7	

SVOCs	=	Semi-volatile organic compounds.
U	=	Not detected; numerical value is the reporting limit for that compound.
ND	=	None detected.
TCE	=	Trichloroethylene.
1,2-DCE	=	1,2-Dichloroethylene.
ug/i	=	Micrograms per liter.
lbs	=	Pounds.
ASU	=	Air stripping unit.
UV/H ₂ O ₂	=	Ultraviolet light/ peroxidation.
(*)	=	Several extraction wells were inactive due to the ongoing Shallow Zone
		Groundwater Investigation (Ogden, 2000) and the Chatsworth Formation
		Operable Unit Investigation (Montgomery Watson, 2000b).
(**)	=	VOCs removed to date were recalculated by EnviroSolve during 2002.
		Consequently, numbers reported here do not match numbers from previous
		Haley & Aldrich 2002 quarterly reports.
	=	Not analyzed.

NOTES:

Samples analyzed for TCE and 1,2-DCE by EPA Method 8010B; perchlorate by modified EPA Method 300.0; and SVOCs by EPA Method 8270.

All GRF water quality samples were collected by EnviroSolve Corporation personnel and analyzed by Del Mar Analytical.

TABLE 17
SUMMARY OF ADDITIONAL WATER QUALITY DATA FOR EXTRACTION TREATMENT SYSTEMS
Boeing Santa Susana Field Laboratory
Ventura County, California

			Perch	lorate			1,4-di	oxane			N-Nitrosodii	nethylamine	
freatment System	Extraction Well	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects
Alfa	WS-6 Alfa Influent	<0.43	<4	7	0	<0.32	<500	14	0	<0.0005	0.0022 J	12	2
Bravo	RD-4 WS-9 ES-21 ES-22	<0.43 <0.43 <4 <4	<4 <4 <4 <4	3 3 3 1	0 0 0	<0.3 <0.32 <3 <3	<500 2.1 6 6	9 12 10 8	0 1 1	<0.002 <0.0005 <0.02 <0.02	0.026 0.0058 <0.02 <0.02	6 8 1	1 3 0 0
	RD-9 Bravo Influent Bravo Primary Effluent	<4 NA NA	<4 NA NA	1 NA NA	0 NA NA	3 3 3	8 <3 <3	11 1	1 0 0	<0.02 <0.02 <20 NA	<20 <20 <20 NA	5 3 NA	0 0 NA
Delta	Bravo Secondary Effluent HAR-7 WS-9A	NA <4 <1.5	NA <4 <4	NA 1 2	NA 0 0	<3 <0.32 <1	<3 <300000 <500	1 19 9	0 0	NA <0.004 <0.0005	NA 0.062 0.00094	NA 14 5	NA 1
071.4	Delta Influent ES-14	<4 <4	<4 <4	11	0	NA <1	NA <5000	NA	NA	<20 NA	<20 NA	7 NA	0
STL4	ES-17 ES-23 ES-24	<4 <4 <4 <4	<4 <4 22	1 1 1	0 0 0 9	<2000 <20 <20	63 5 72	5 6 8 7	0 1 2 1	<10 <0.002* <5	<10 <0.002* <5	1 1 1	NA 0 0 0
	ES-26 ES-27 ES-30	<4 <4 <1	<4 <4 <4	1 1 2 1	0 0 0	<1 <1 <20 <1	<10000 <10000 8	7 7 10	0 1	0.0071 0.017 <0.002	0.0071 0.017 <0.002	1 1 1	1 0
	ES-32 HAR-17 HAR-18 ECL Sump	<4 <1 <4 <4	<4 <4 <4 <4	2 1 1	0 0	<0.32 <20 <1	<10000 <500 72 <1	7 18 7 1	0. 0 2 0	NA <0.004 2.5 <10	NA 0.082 2.5 <10	NA 10 5	NA 2 1 0
	ECL Fr Drn STL4 Influent STL4 Primary Effluent STL4 Secondary Effluent	<4 <4 <20 <1	<4 <4 <20 <20	4 12 1 2	0 0	<20 4.96 32 20	13 4.96 32 20	8 1 1	1 1 1	<6 0.04 0.026* 0.0042	<10 0.04 0.026* 0.0042	5 12 1	0 1 1

TABLE 17
SUMMARY OF ADDITIONAL WATER QUALITY DATA FOR EXTRACTION TREATMENT SYSTEMS
Boeing Santa Susana Field Laboratory
Ventura County, California

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		Perchlorate			1,4-dioxane				N-Nitrosodimethylamine				
reatment System	Extraction Well	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects	Minimum Concentration (ppb)	Maximum Concentration (ppb)	Number of Samples	Number of Detects
WS-5 Area	ES-1	<4	<4	4	0	<20	8	7	1	NA	NA	NA	NA
	ES-3	<1	<4	3	0	<20	8	8	1	NA	NA	NA	NA
	ES-4	<4	<4	2	0	<3	<500	4	0	NA NA	NA	NA	NA
	ES-5	<4	<4	2	0	<3	<500	4	0	NA NA	NA	NA	NA
	ES-6	<4	6	4	1	<3	<3000	7	0	NA NA	NA	NA	NA
	ES-7	<4	38	3	1	<20	<1000	3	0	NA	NA	NA	NA
	ES-11	<7	48	2	2	<20	<500	2	0	NA	NA	NA	NA
	HAR-4	<1	<4	4	0	<1	<500	8	0	<10	0.024	2	1
	HAR-16	200	670	11	11	<11	13	15	1	5	26	14	10
	RD-1	<0.43	5.8	12	1	<1	1.6	15	1	<0.002	0.056	7	2
	RD-2	<0.43	<4	8	0	<0.32	1.4	15	1	<0.002	0.011	10	1
	WS-5	<0.43	<4	11	0	<0.32	5.86 J	17	5	<0.0005	0.0026	13	1
FSDF	RD-21	<4	9	7	6	<80	<5000	7	0	<0.002	<10	2	0
	RS-54	<4	15	13	11	<15.4	<50000	9	0	<6	<6	1	0
	FSDF Influent	5.2	7.8	9	9	NA	NA	NA	NA	NA	NA	NA	NA
	FSDF Midpoint	<4	<4	7	0	NA	NA	NA	NA	NA NA	NA	NA	NA
RMHF	RD-63	<8	<8	1	0	<20	<1000	8	0	NA	NA	NA	NA
B/059	RD-24	<0.43	<4	5	0	<20	<1000	14	0	<10	<10	2	0
	RD-25	<0.43	<4	4	0	<20	<1000	8	0	<10	<10	1	0
	RD-28	<0.43	<4	4	0	<20	<1000	9	0	<10	<10	1	0
	S-2 Sump	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	B/056 Pit	NA	NA	NA NA	NA	NA NA	NA NA	NA	NA	NA	NA	NA	NA NA

NA = Not Available

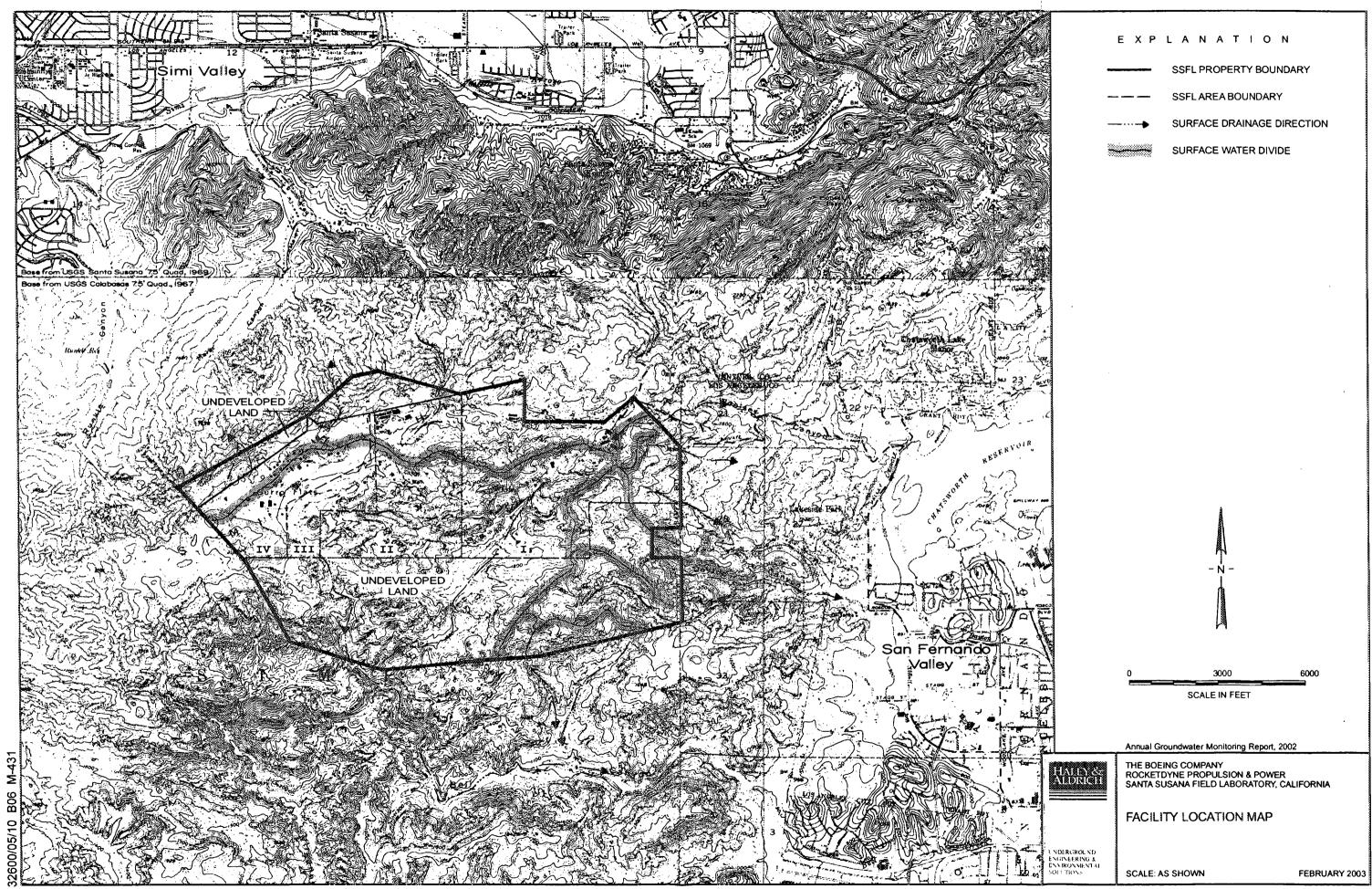
ppb = Parts per billion

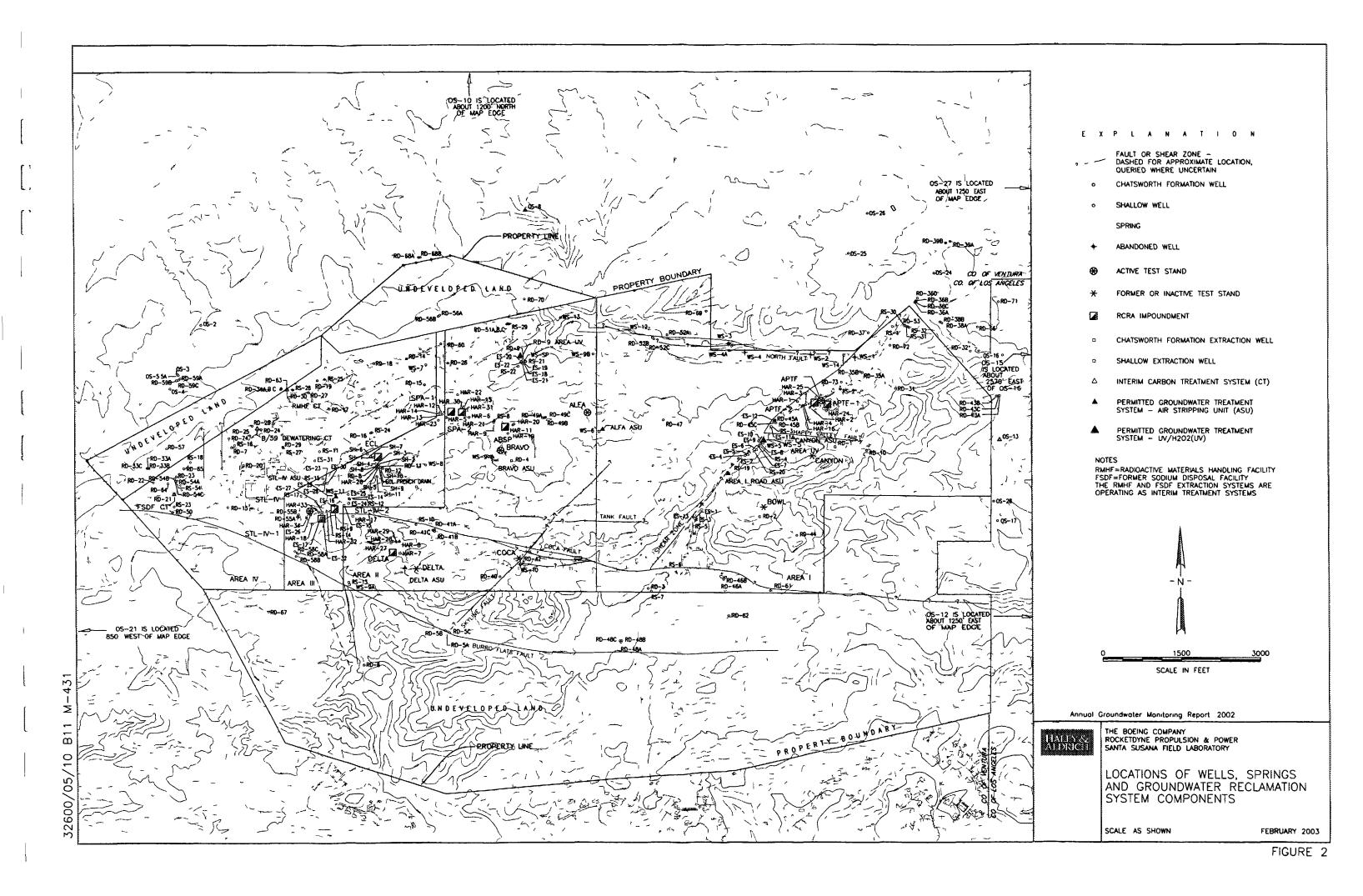
(*) = QC result outside of acceptance limits

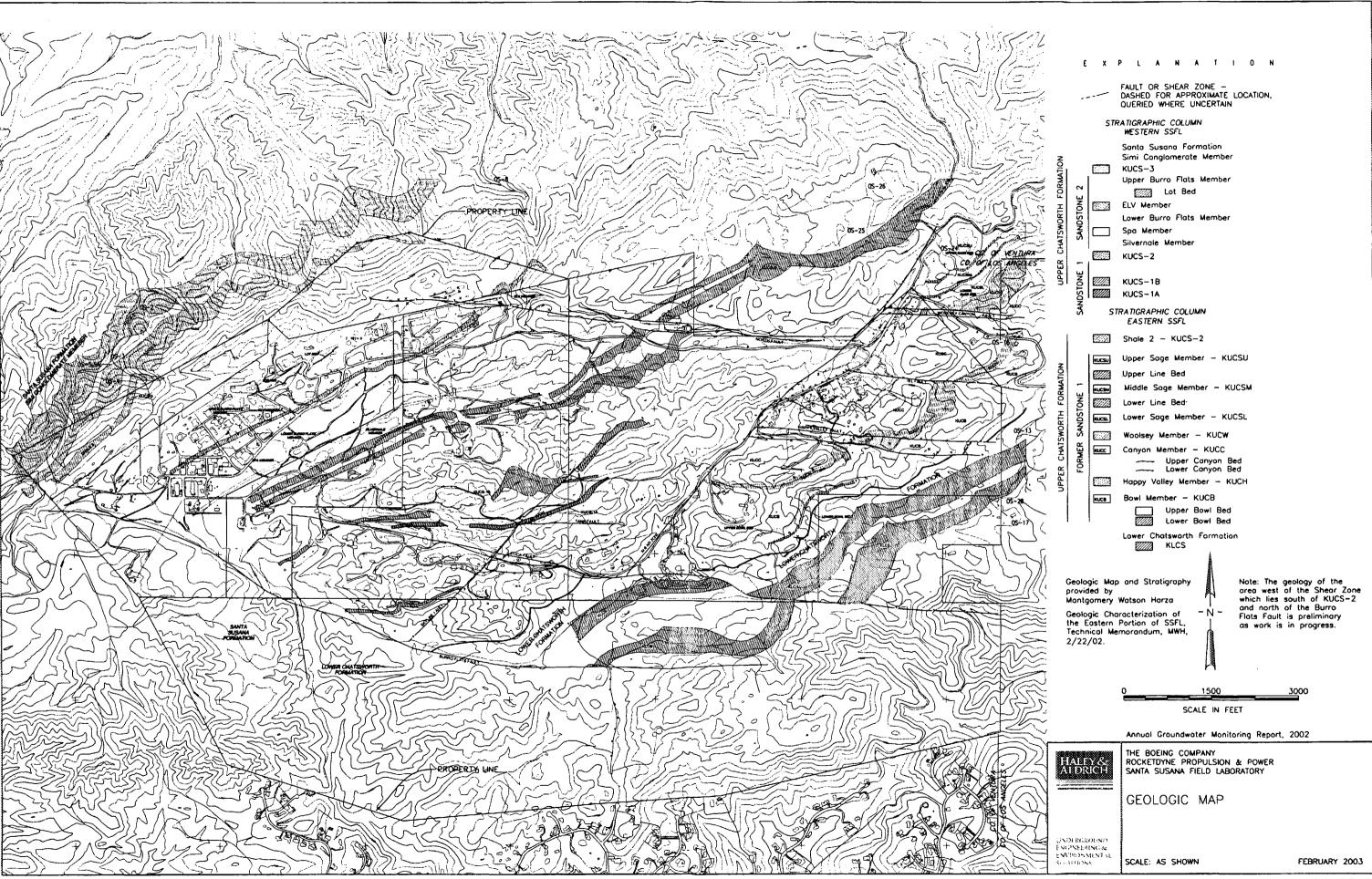
J = Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL).

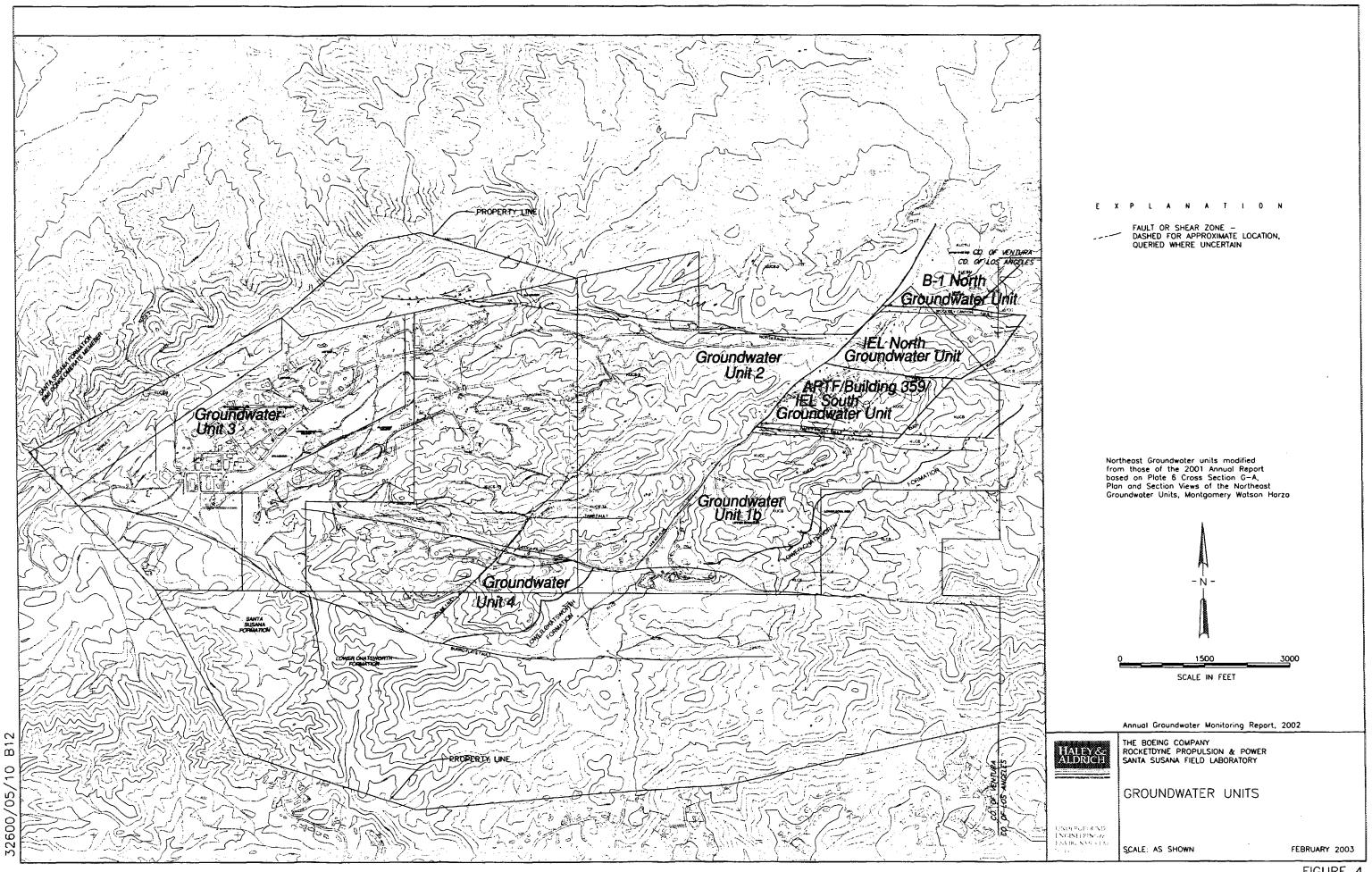
< = Not detected; numerical value represents the Method Detection Limit for that compound

Figures

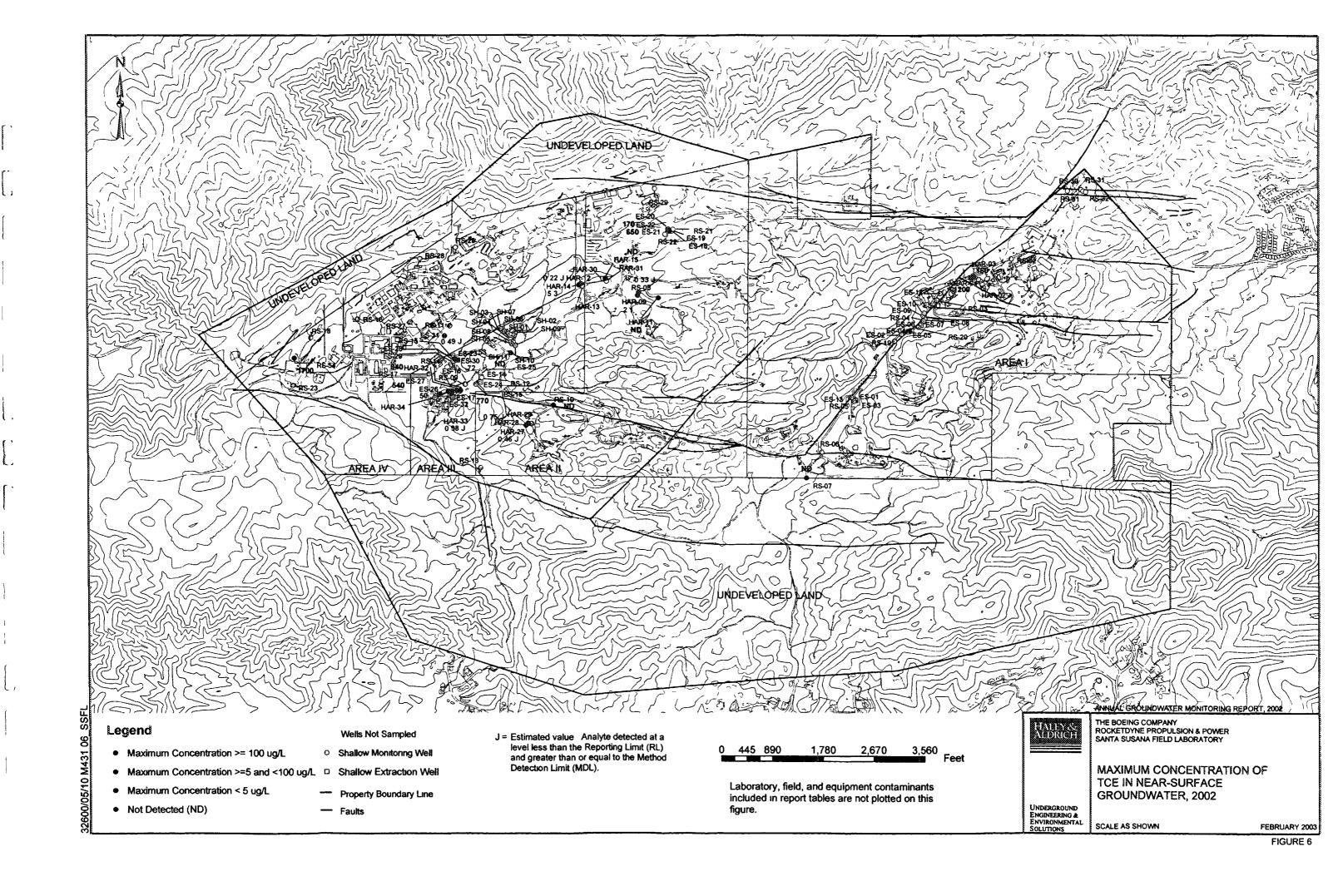


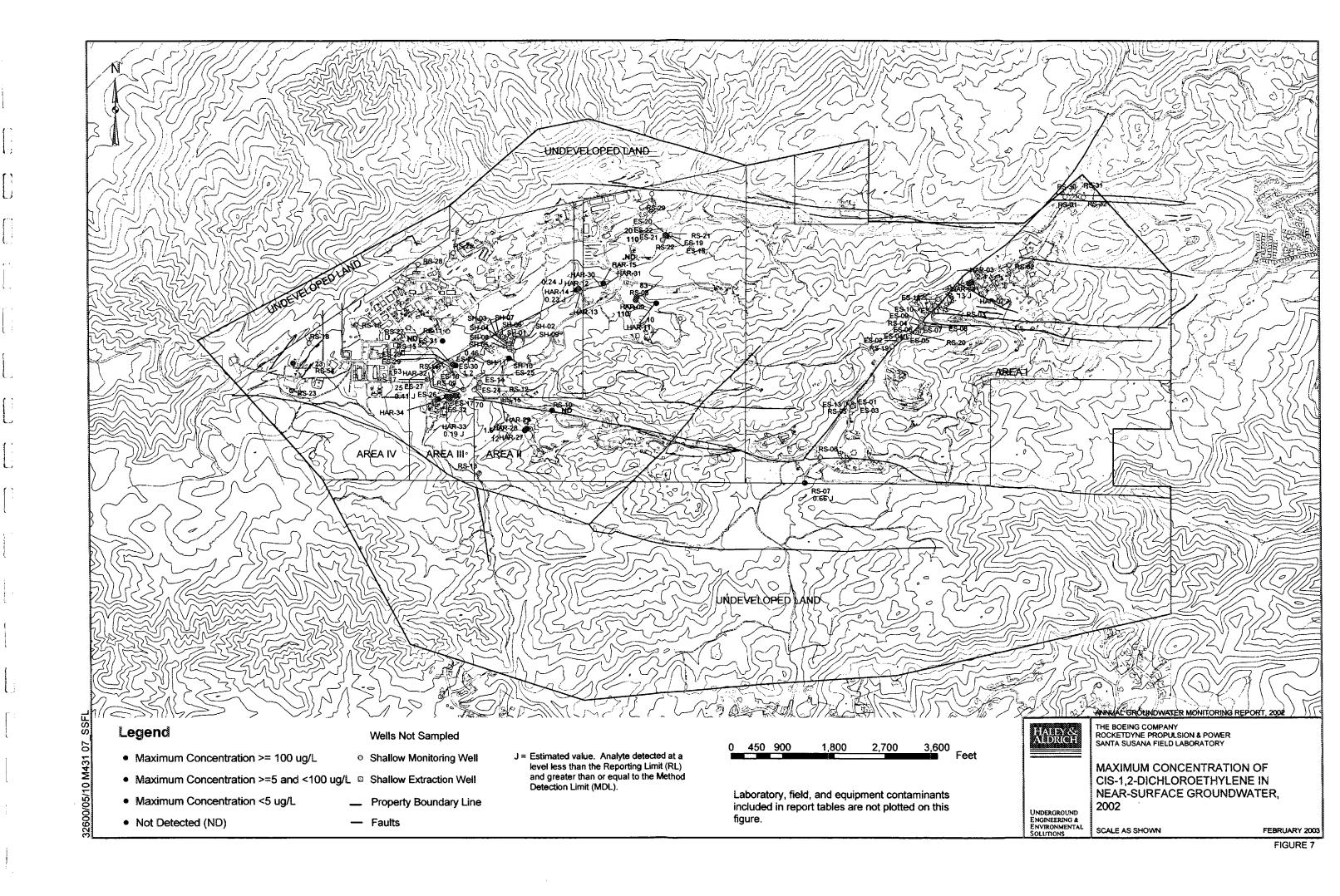


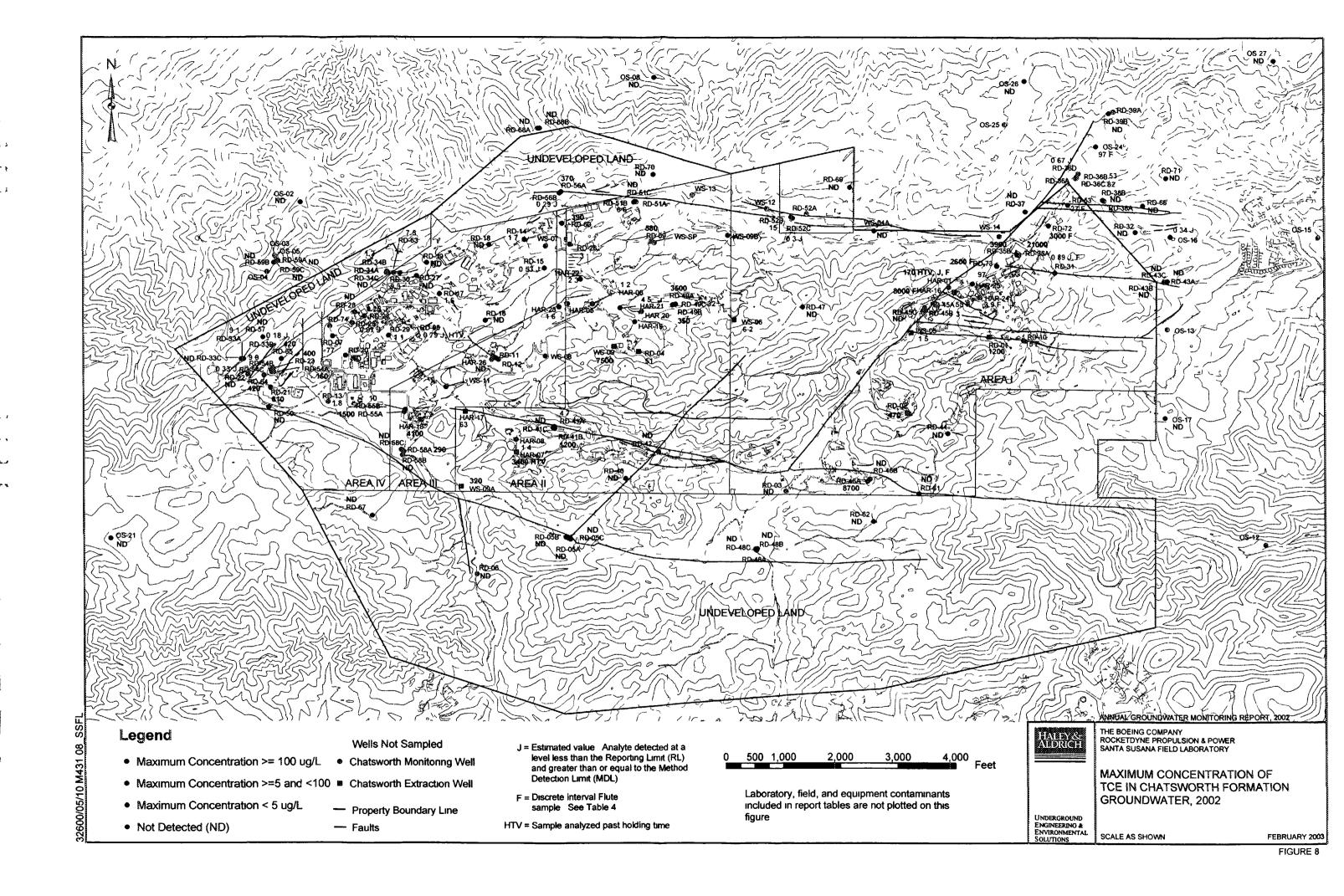


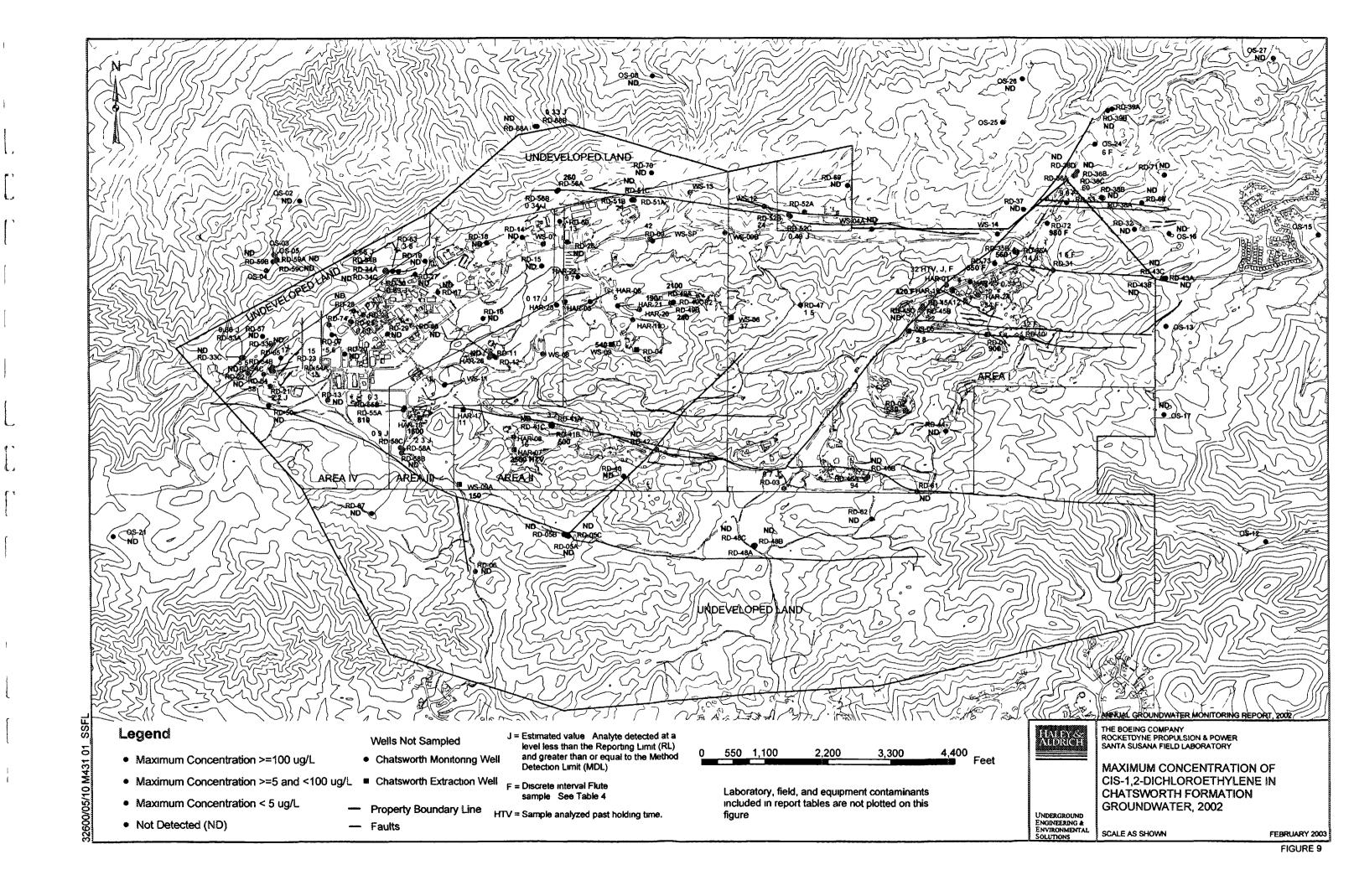


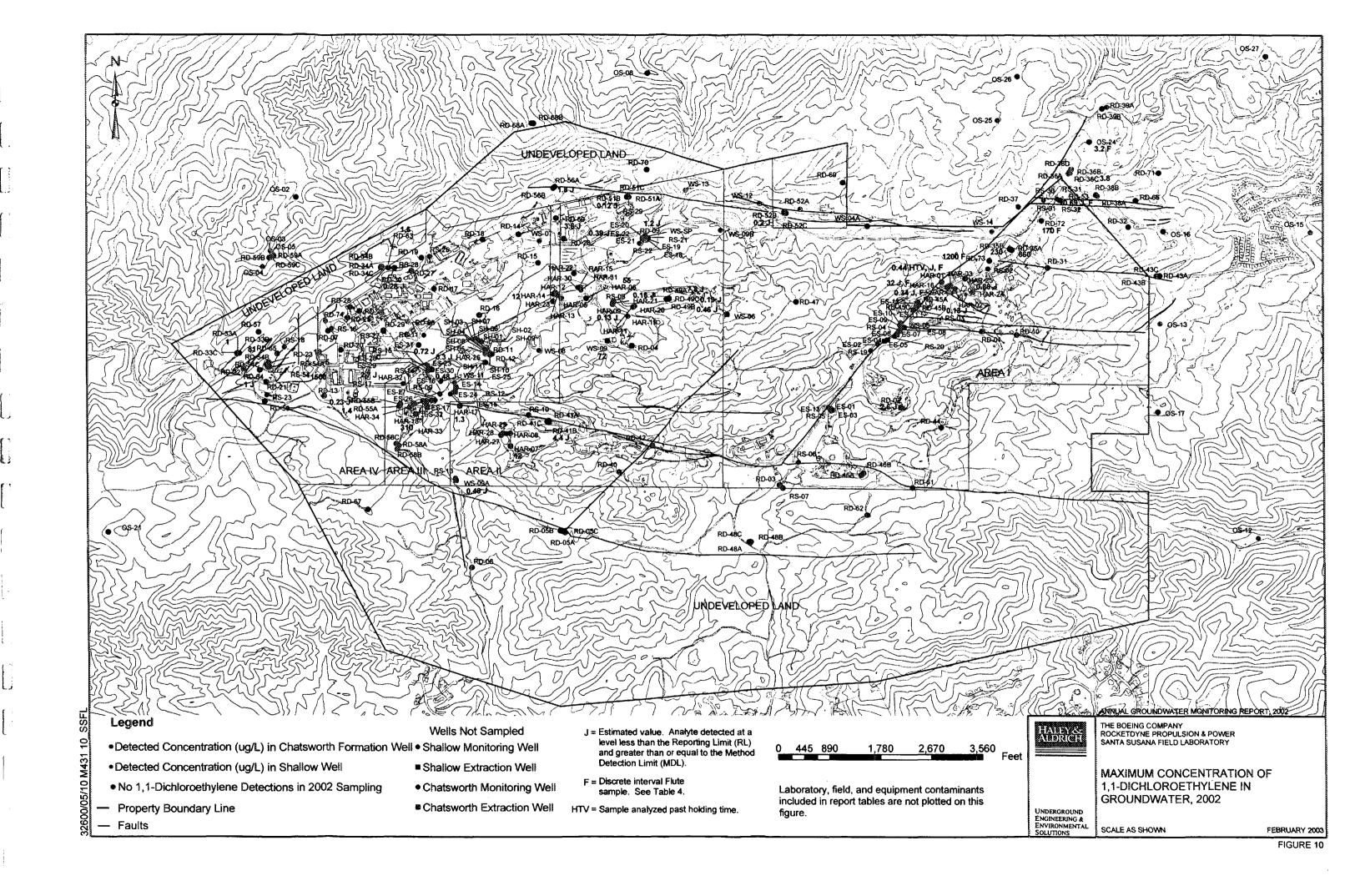
E X P L A N A T I O N FAULT OR SHEAR ZONE -DASHED FOR APPROXIMATE LOCATION, QUERIED WHERE UNCERTAIN CHATSWORTH FORMATION WELL SHALLOW WELL ABANDONED WELL BRODERTY BOUNDA ACTIVE TEST STAND FORMER OR INACTIVE TEST STAND RCRA IMPOUNDMENT CHATSWORTH FORMATION EXTRACTION WELL SHALLOW EXTRACTION WELL INTERIM CARBON TREATMENT SYSTEM (CT) PERMITTED GROUNDWATER TREATMENT SYSTEM - AIR STRIPPING UNIT (ASU) PERMITTED GROUNDWATER TREATMENT SYSTEM - UV/H2O2(UV) NOTES RMHF=RADIOACTIVE MATERIALS HANDLING FACILITY FSDF=FORMER SODIUM DISPOSAL FACILITY THE RMHF AND FSDF EXTRACTION SYSTEMS ARE OPERATING AS INTERIM TREATMENT SYSTEMS 850 WEST OF WAP FOCE SCALE IN FEET Annual Groundwater Monitoring Report 2002 THE BOEING COMPANY ROCKETDYNE PROPULSION & POWER SANTA SUSANA FIELD LABORATORY HALFY & ALDRICH WATER LEVEL ELEVATION CONTOUR MAP — NOVEMBER 2002 VI CRONVEVORUMENT Y SCALE AS SHOWN FEBRUARY 2003 FIGURE 5

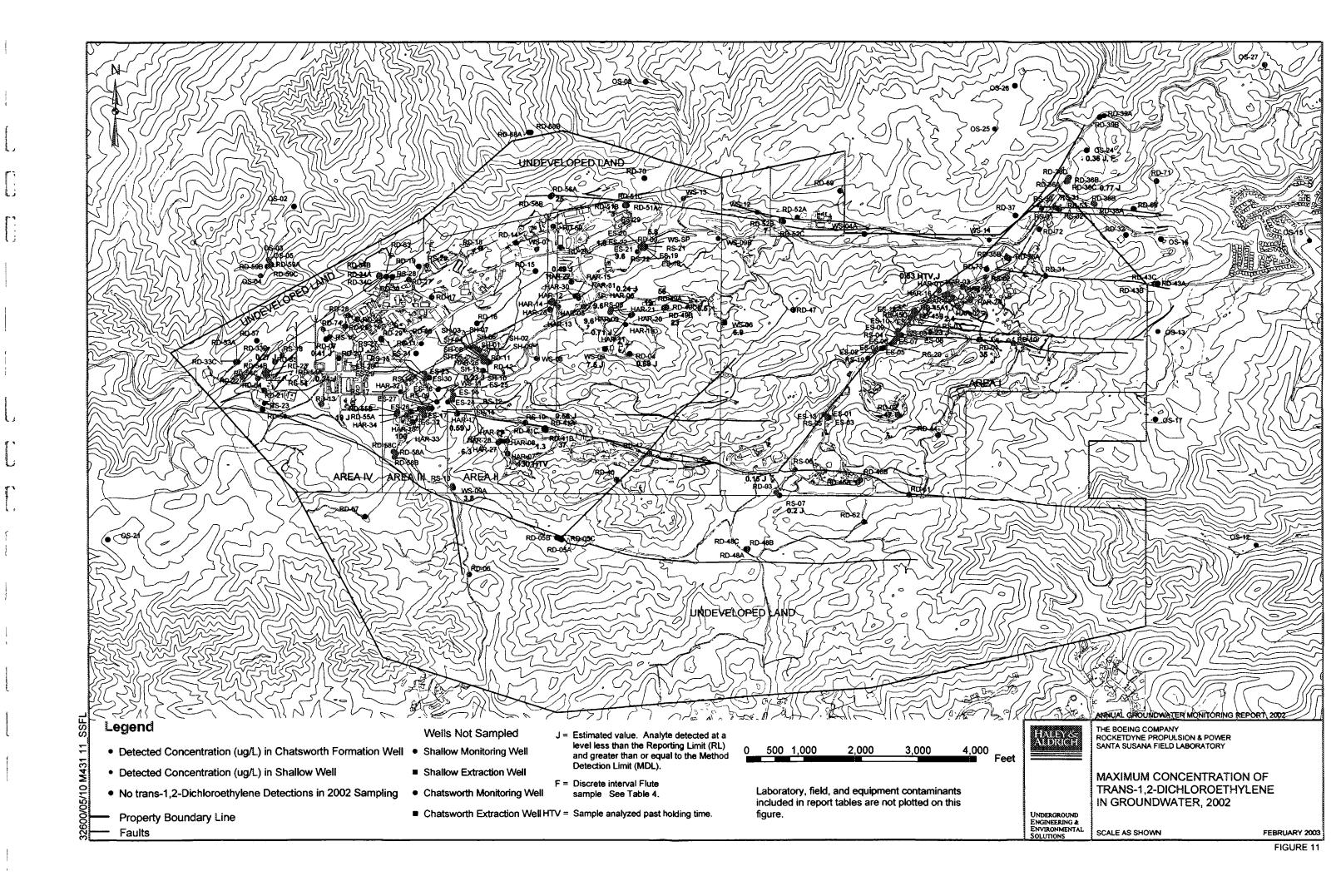


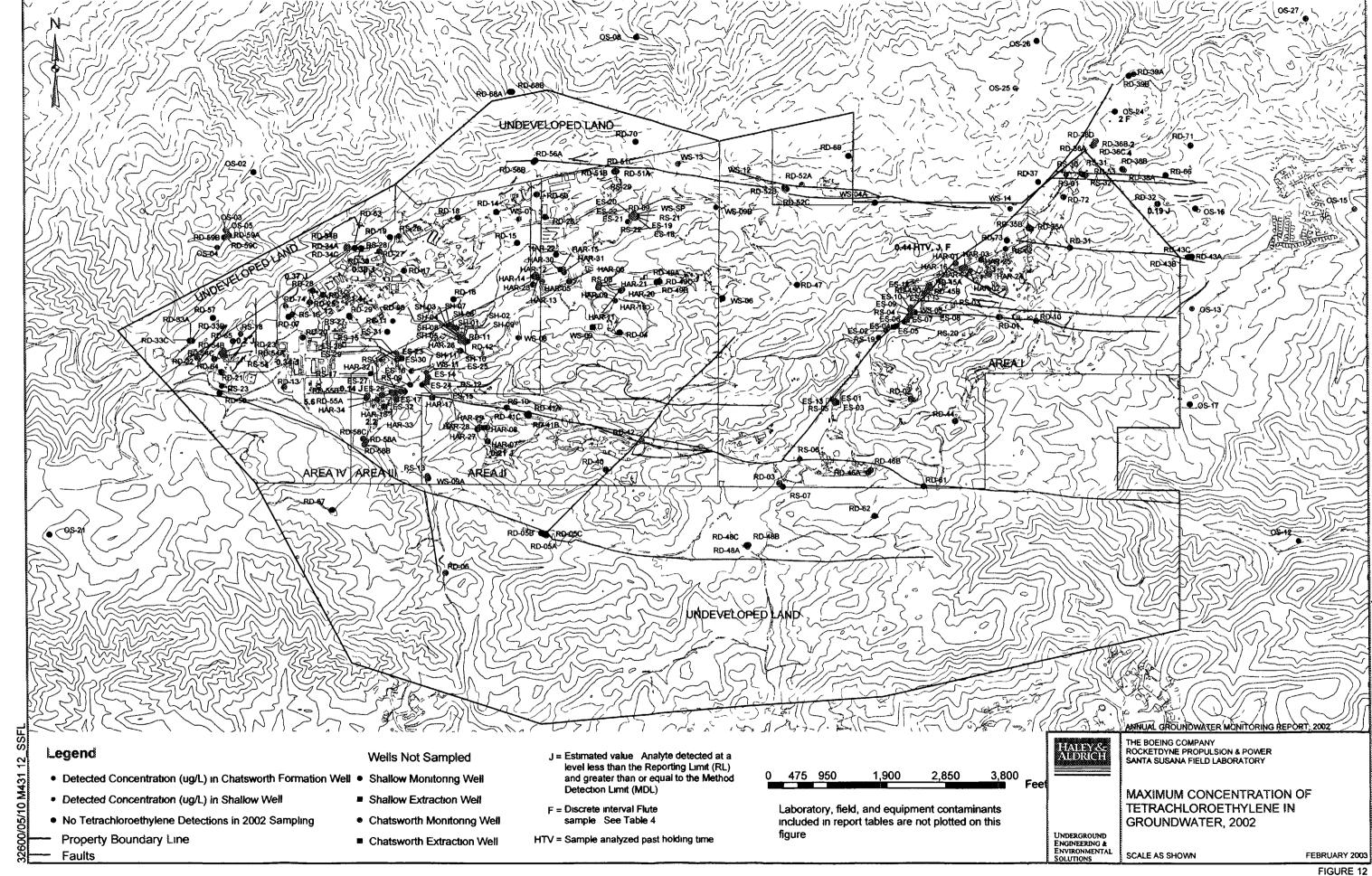


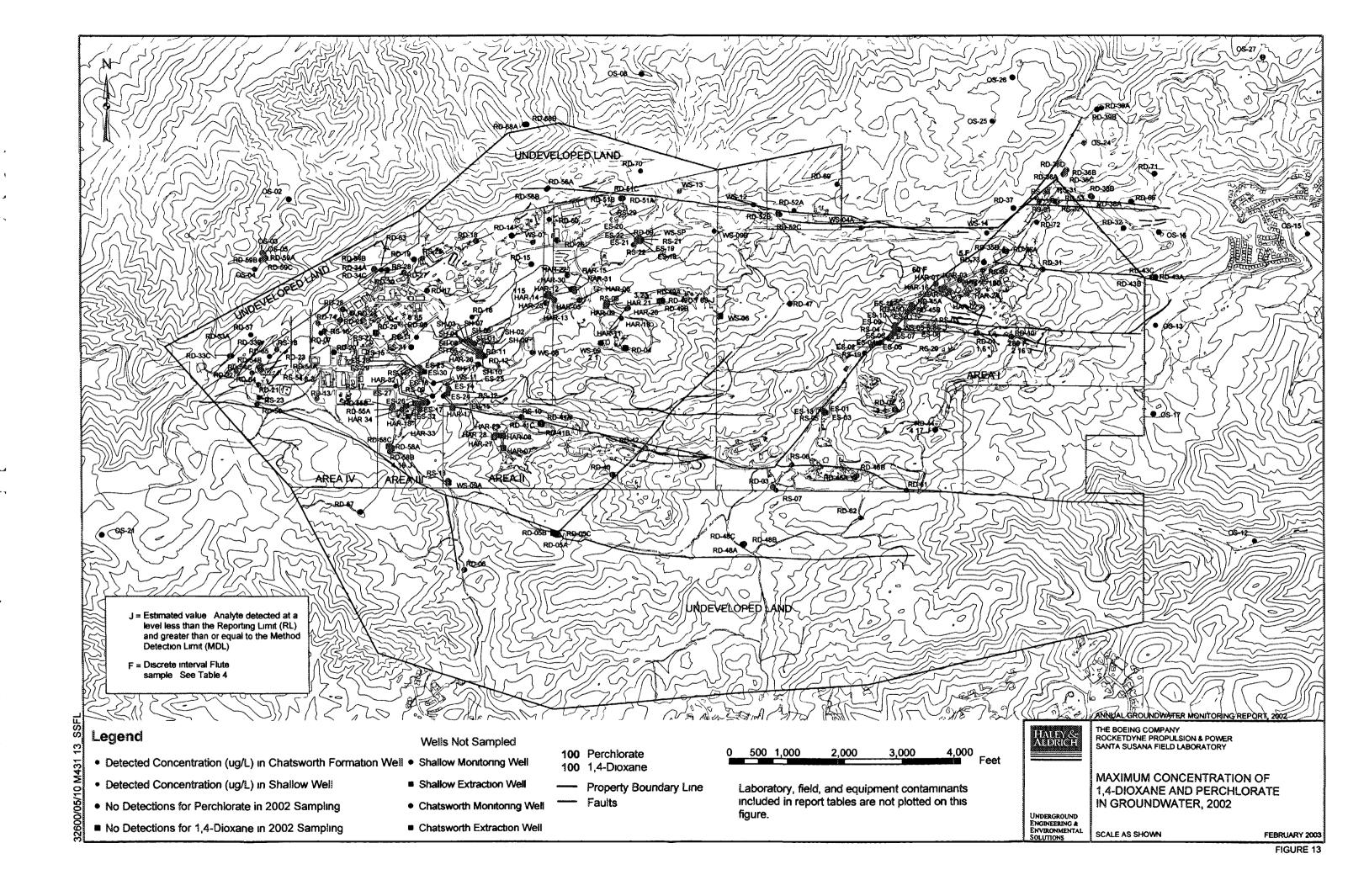


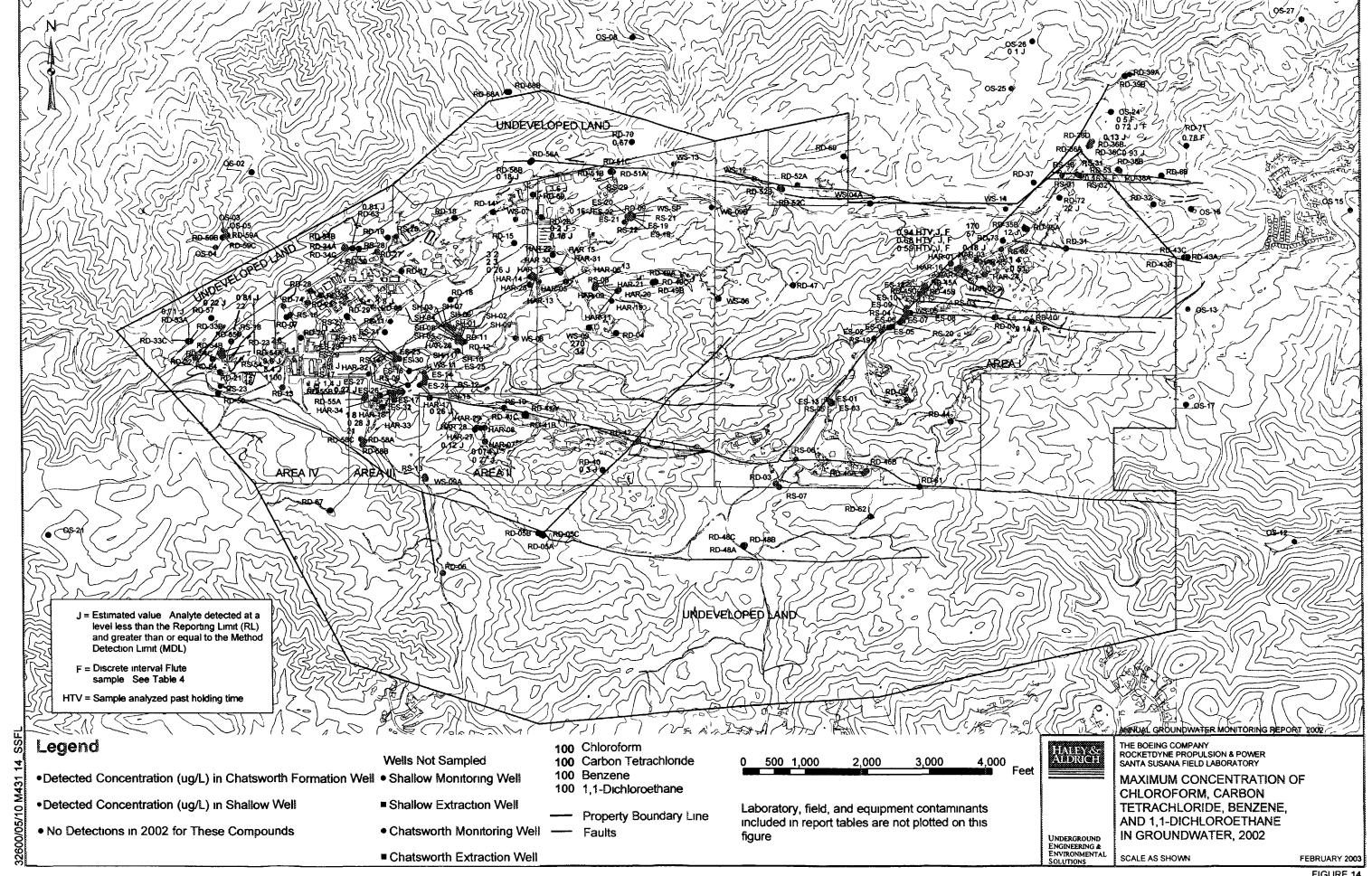


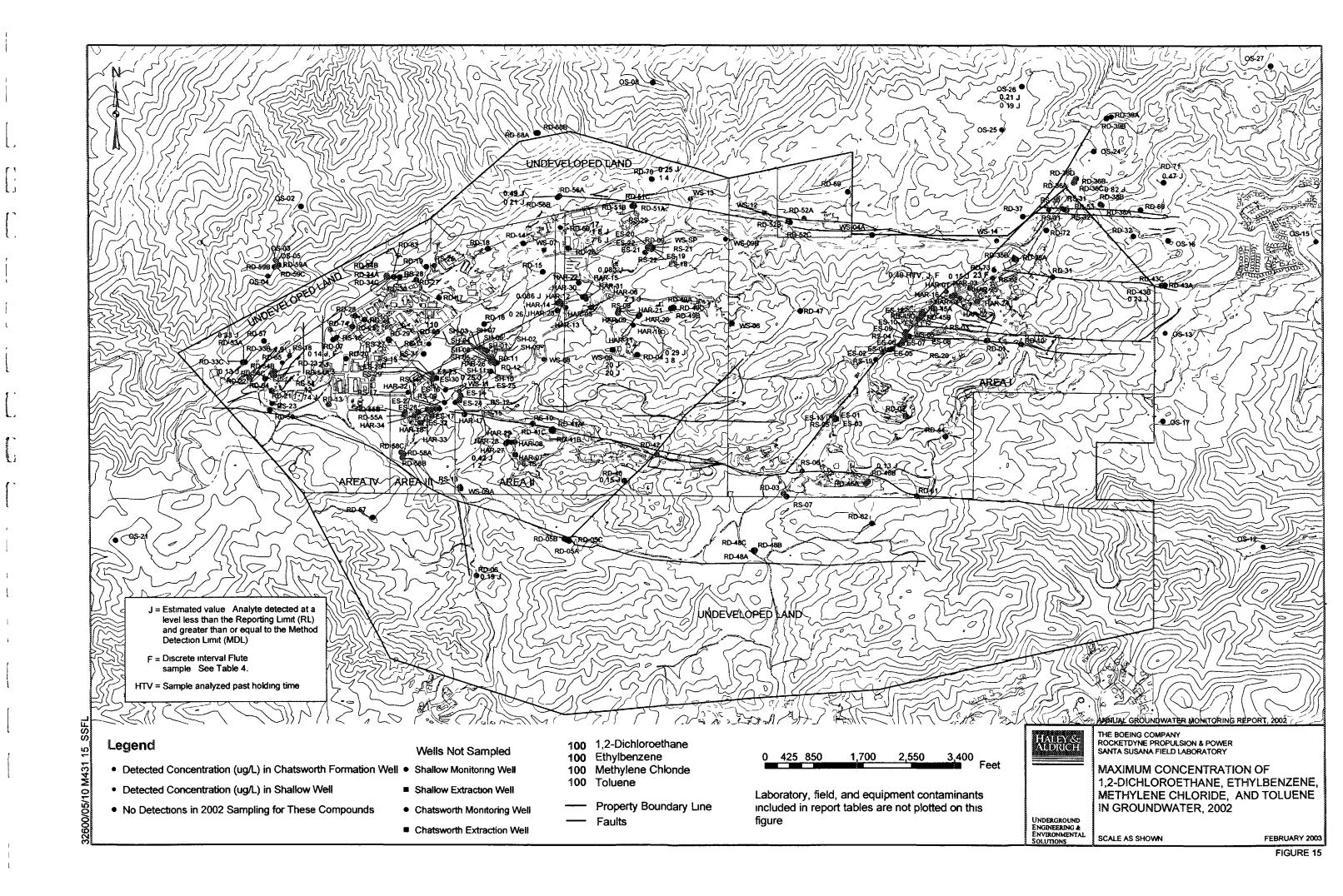


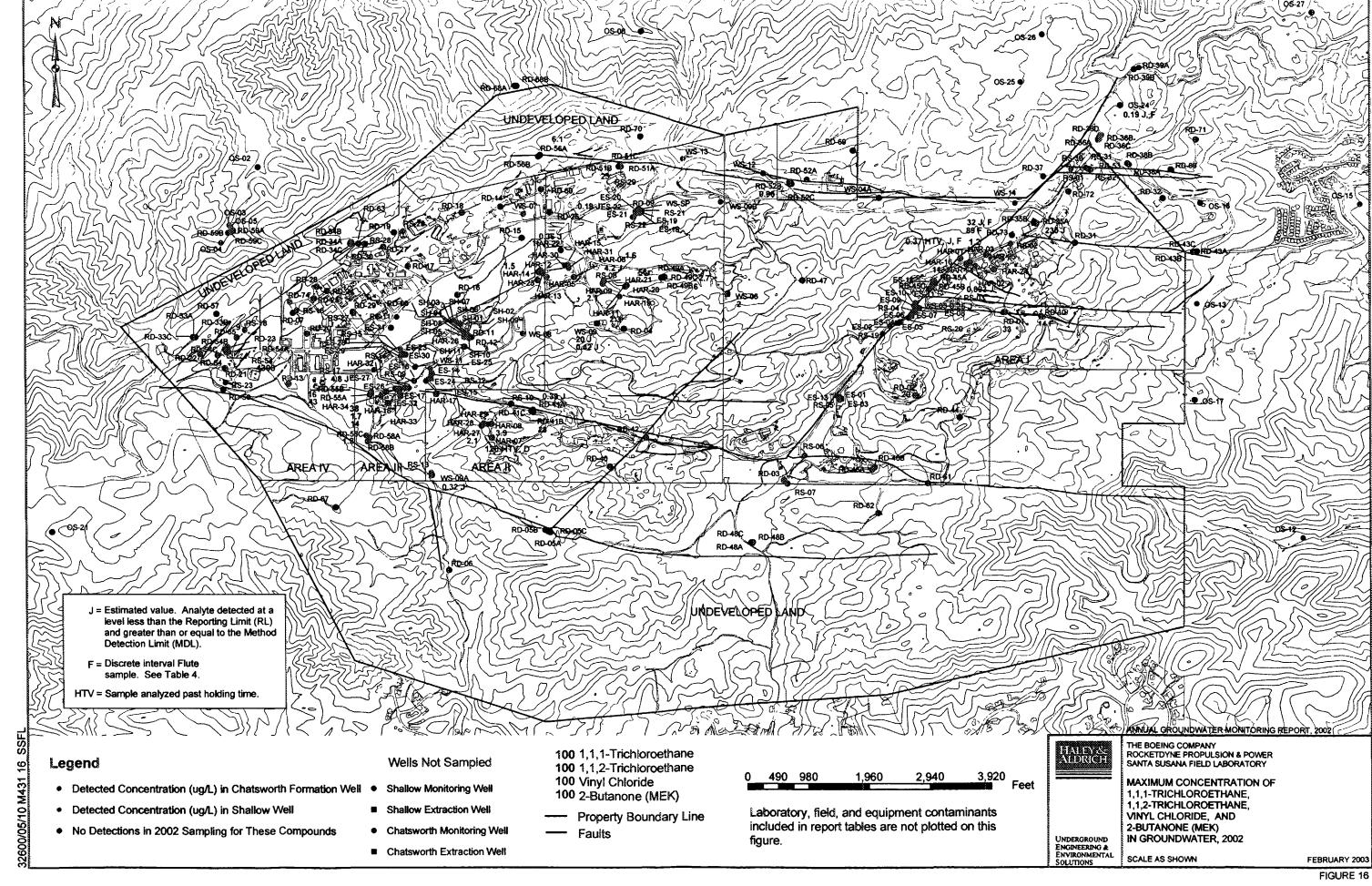


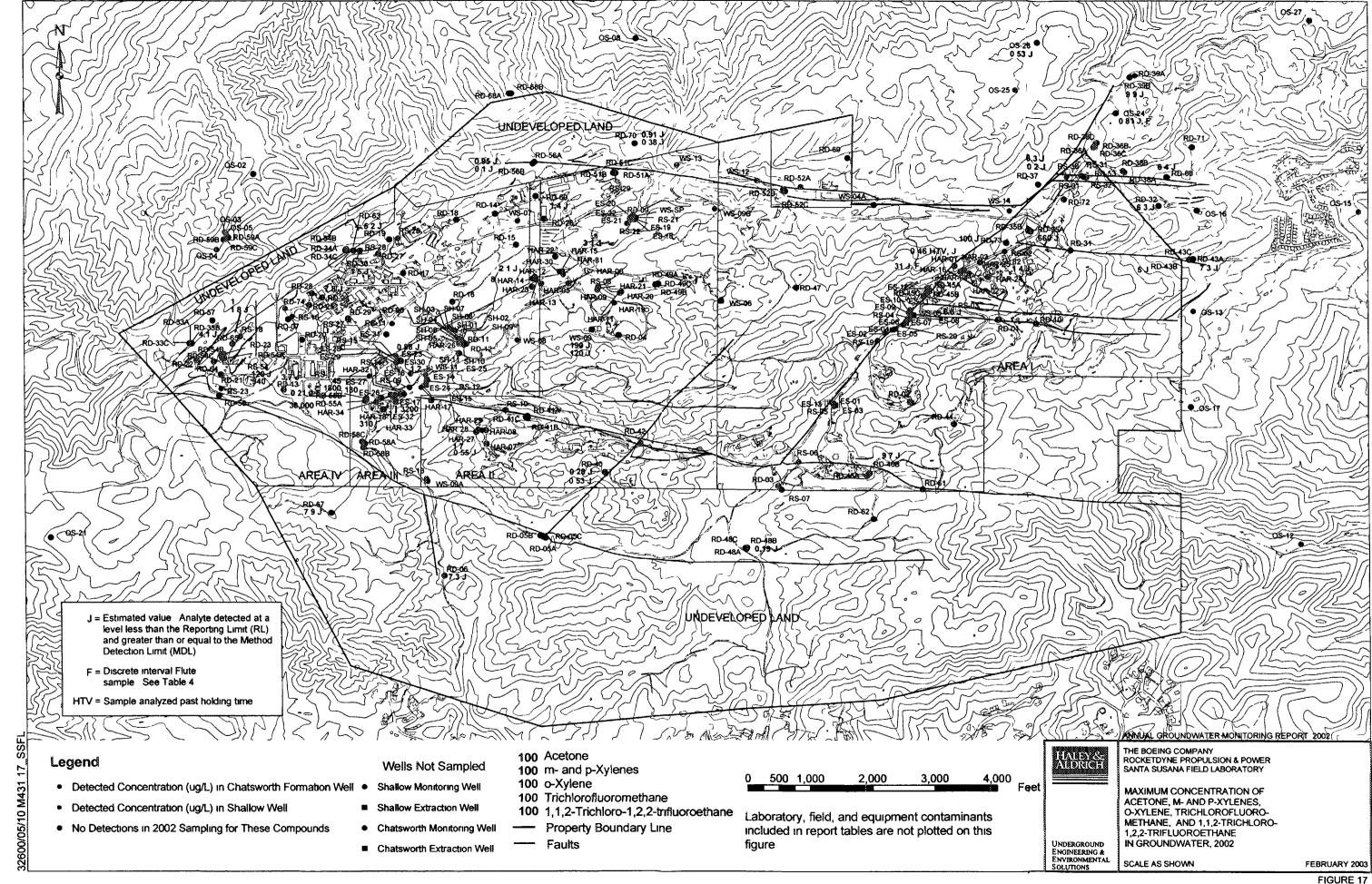


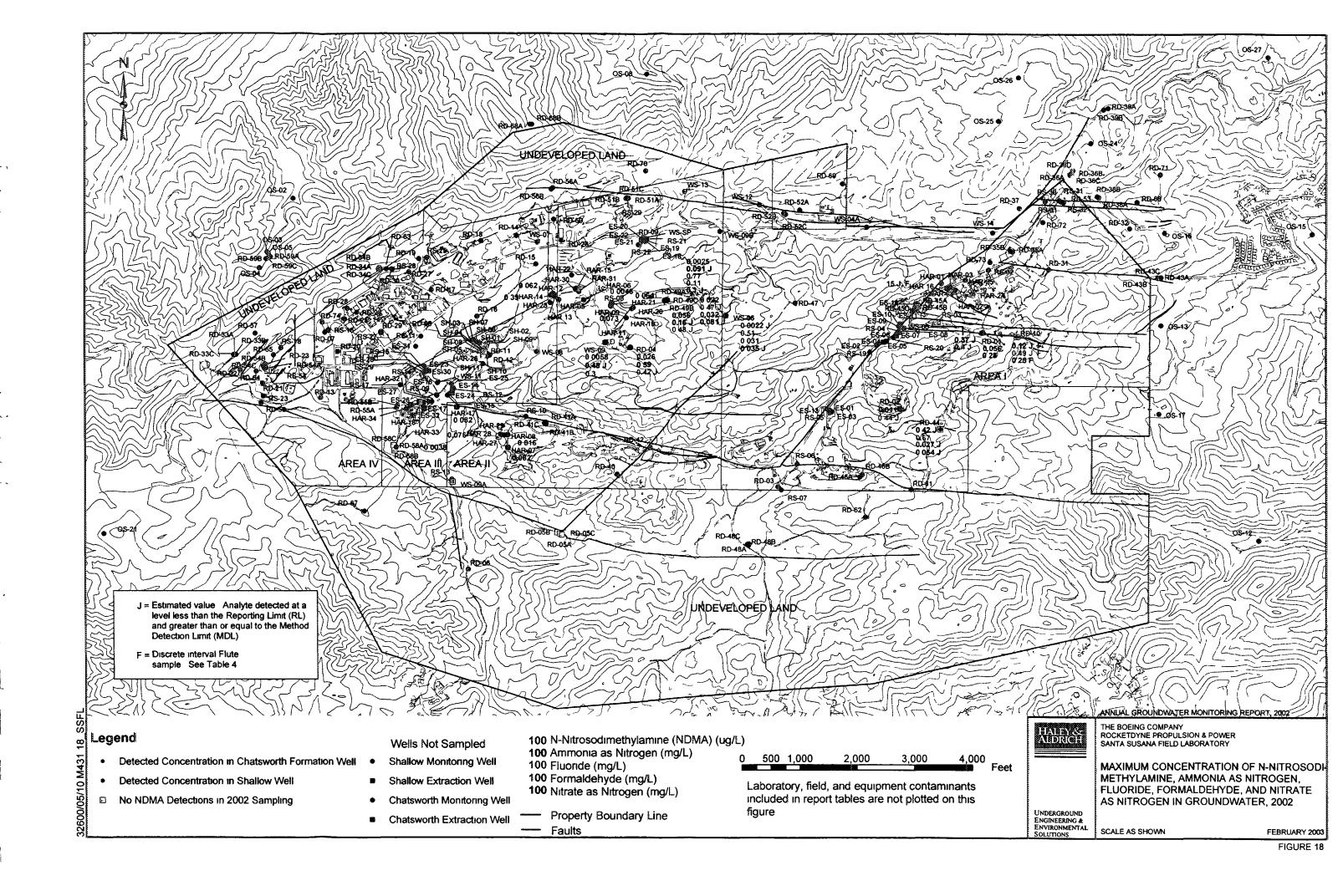


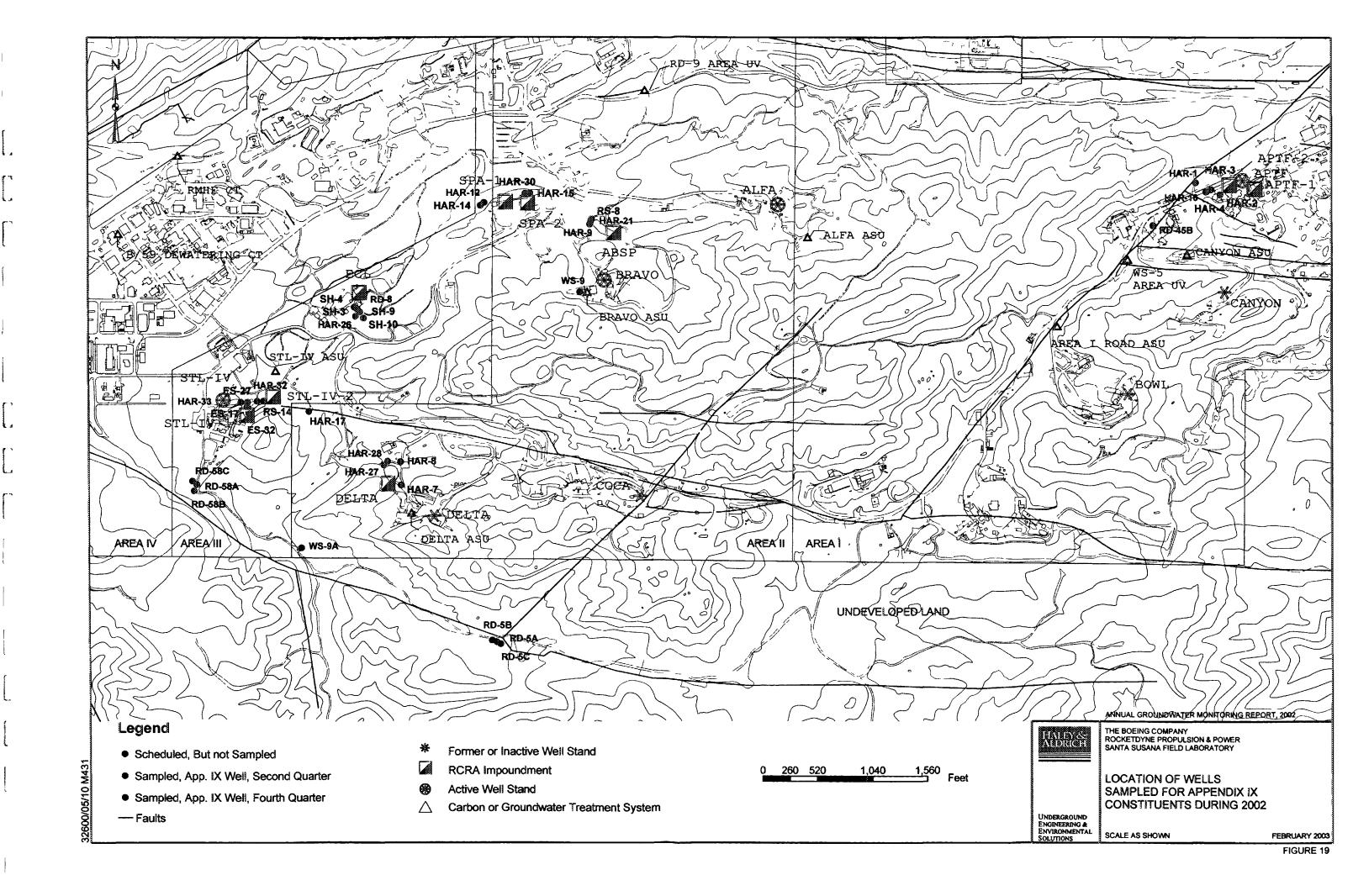


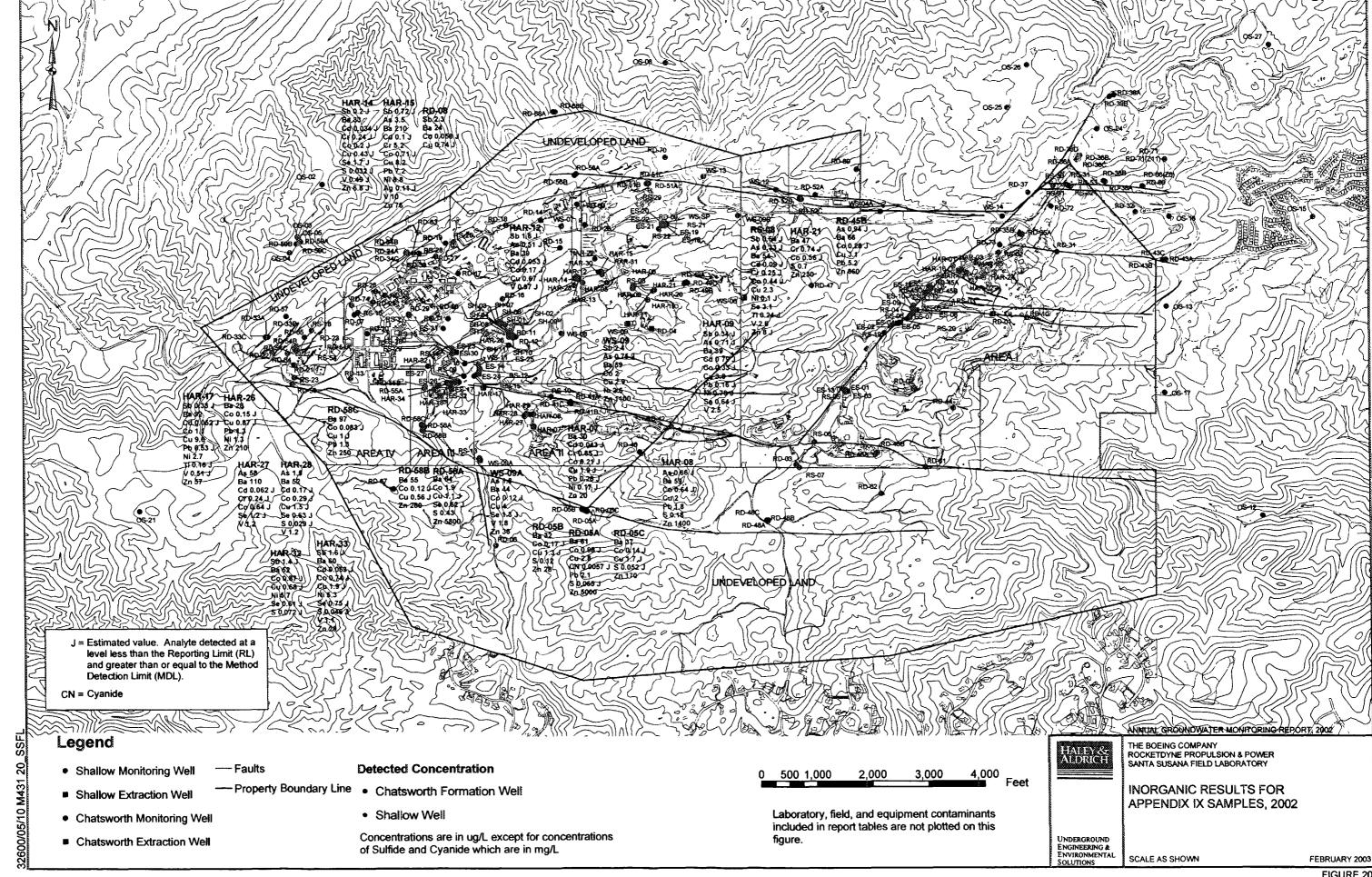


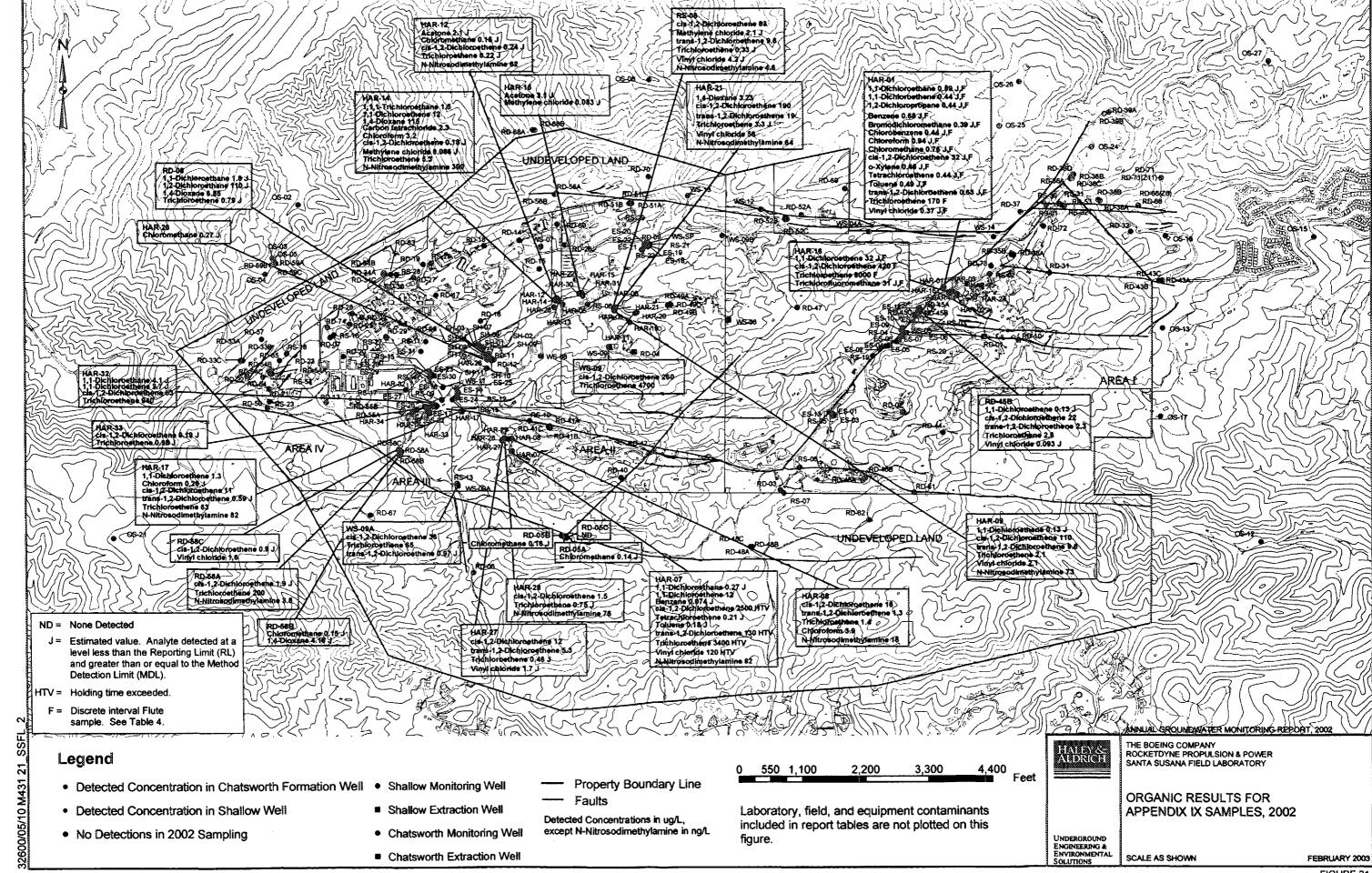












Appendix A

APPENDIX A

WATER LEVEL HYDROGRAPHS



APPENDIX A WATER LEVEL HYDROGRAPHS

TABLE OF CONTENTS

Figures

Water Level Hydrographs A-1 through A-234
FLUTe System Hydrographs A-235 through A-247

i

Table

Construction Details of Discrete-Interval Monitoring Systems A-1

LIST OF HYDROGRAPHS

Shallow Zone Wells

Figure	•	Well Identifier
A-1	through A-11	SH-01 through SH-11
A-12	through A-36	RS-01 through RS-25
A-37	through A-43	RS-27 through RS-32, and RS-54
A-44	through A-75	ES-01 through ES-32
A-76	through A-79	HAR-02 through HAR-04, and HAR-09
A-80	through A-84	HAR-11 through HAR-15
A-85	through A-92	HAR-27 through HAR-34

Chatsworth Formation Wells

Figure			Well Identifier
A-93	through	A-96	RD-01 through RD-04
A-97	through	A-99	RD-05A, RD-05B, RD-05C
A-100	through	A-126	RD-06 through RD-32
A-127	through	A-129	RD-33A, RD-33B, RD-33C
A-130	through	A-132	RD-34A, RD-34B, RD-34C
A-133	through	A-134	RD-35A, RD-35B
A-135	through	A-139	RD-36A, RD-36B, RD-36C, RD-36D, and RD-37
A-140	through	A-141	RD-38A, RD-38B
A-142	through	A-144	RD-39A, RD-39B, and RD-40
A-145	through	A-148	RD-41A, RD-41B, RD-41C, and RD-42
A-149	through	A-152	RD-43A, RD-43B, RD-43C, and RD-44
A-153	through	A-155	RD-45A, RD-45B, RD-45C
A-156	through	A-158	RD-46A, RD-46B, and RD-47
A-159	through	A-161	RD-48A, RD-48B, RD-48C
A-162	through	A-165	RD-49A, RD-49B, RD-49C, and RD-50
A-166	through	A-168	RD-51A, RD-51B, RD-51C
A-169	through	A-172	RD-52A, RD-52B, RD-52C, and RD-53
A-173	through	A-175	RD-54A, RD-54B, RD-54C
A-176	through	A-177	RD-55A, RD-55B
A-178	through	A-180	RD-56A, RD-56B, and RD-57
A-181	through	A-183	RD-58A, RD-58B, RD-58C
A-184	through	A-186	RD-59A, RD-59B, RD-59C
A-187	through	A-194	RD-60 through RD-67



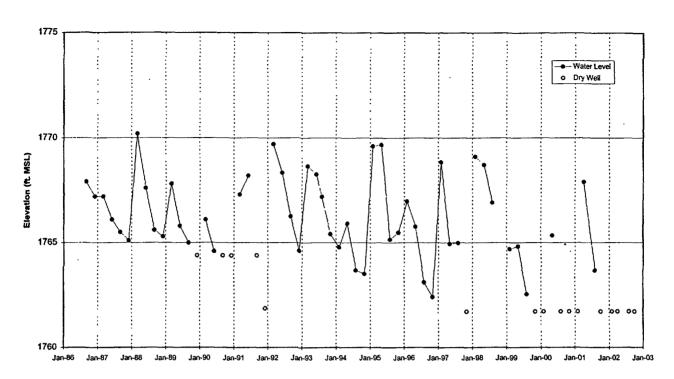
Chatsworth Formation Wells - continued

Figure	Well Identifier
A-195 through A-186	RD-68A, RD-68B
A-197 through A-202	RD-69 through RD-74
A-203 through A-207	HAR-01, and HAR-05 through HAR-08
A-208 through A-218	HAR-16 through HAR-26
A-219 through A-223	WS-04A through WS-08
A-224 through A-226	WS-09, WS-09A, WS-09B
A-227 through A-231	WS-11 through WS-14, and WS-SP
A-232 through A-234	OS-24 through OS-26

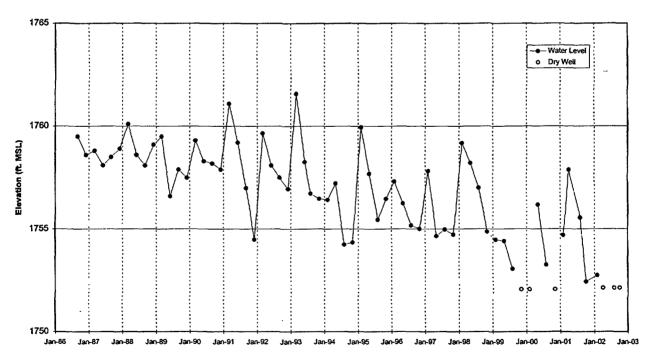
FLUTe System Hydrographs

Well Identifier
RD-31
RD-38A
RD-39A
RD-45A
RD-53
RD-66
RD-71
RD-72
RD-73
HAR-01
HAR-16
HAR-24
OS-24

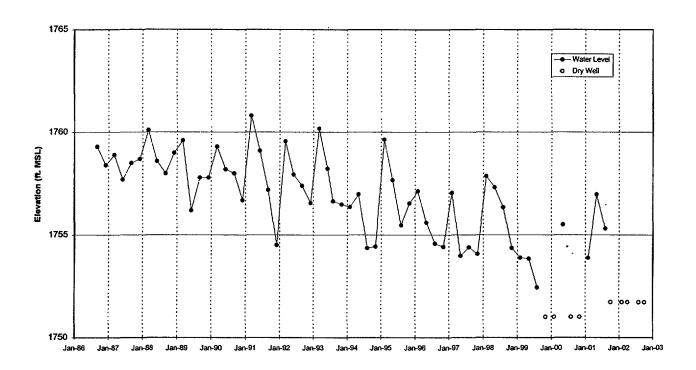




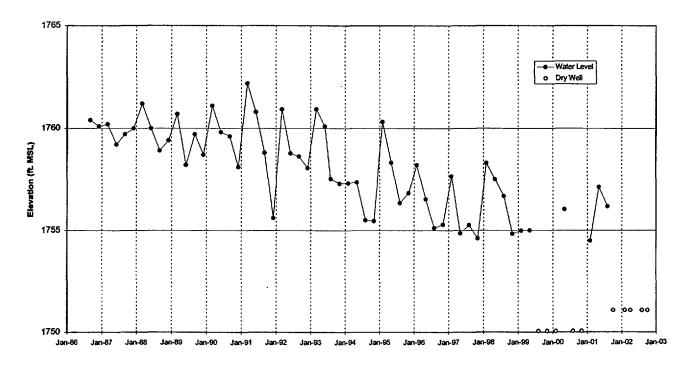
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-1 Figure A-1



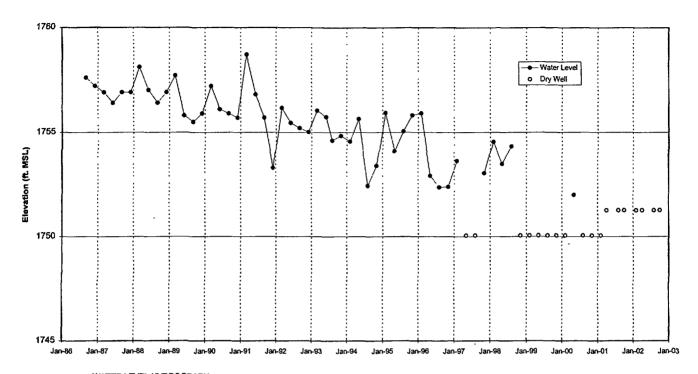
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-2 Figure A-2



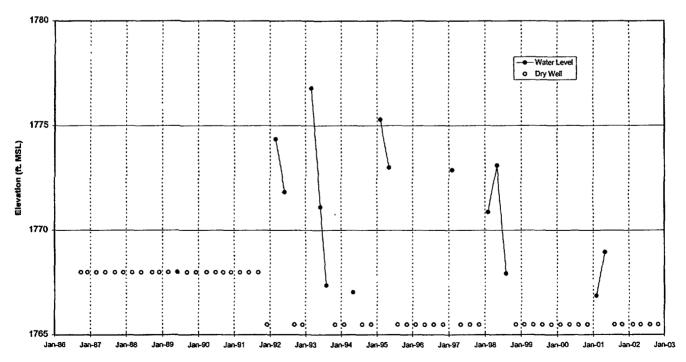
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-3 Figure A-3



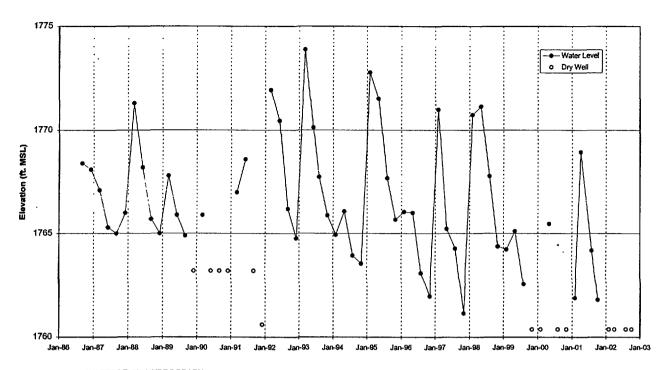
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-4 Figure A-4



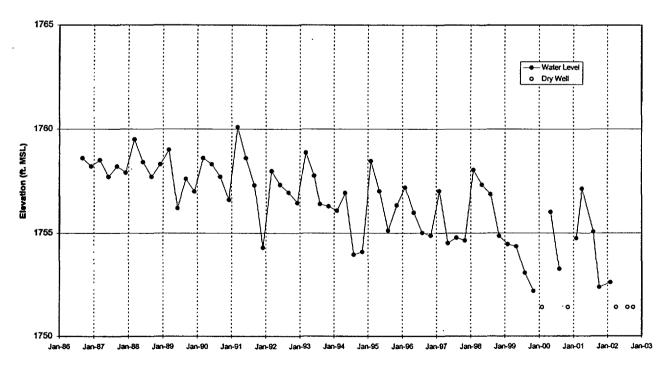
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-5 Figure A-5



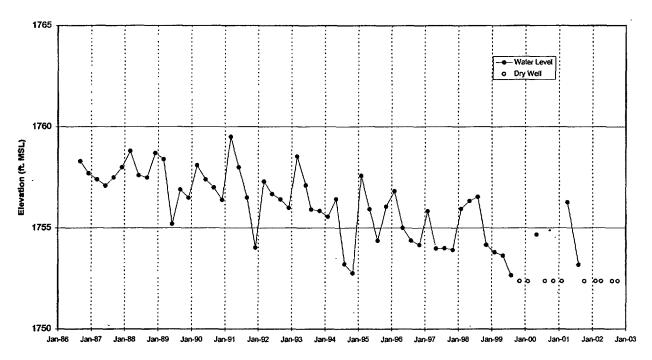
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-6 Figure A-6

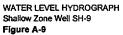


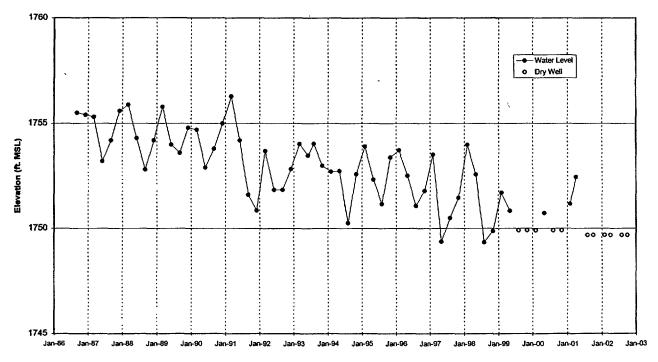
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-7 Figure A-7



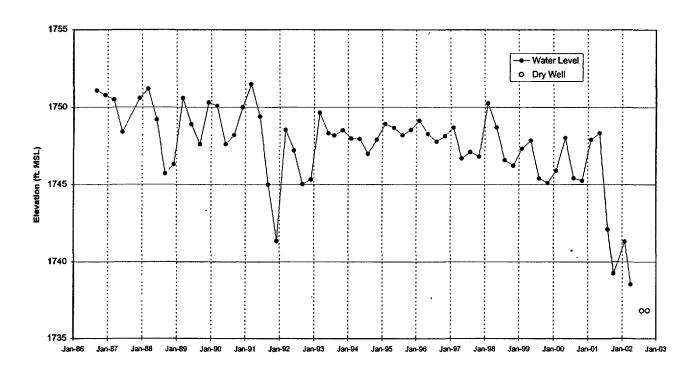
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-8 Figure A-8



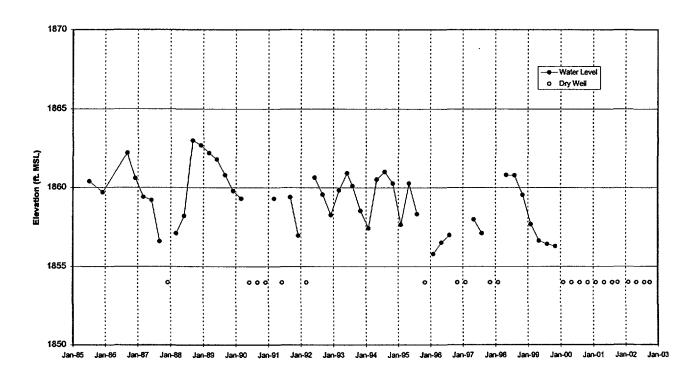




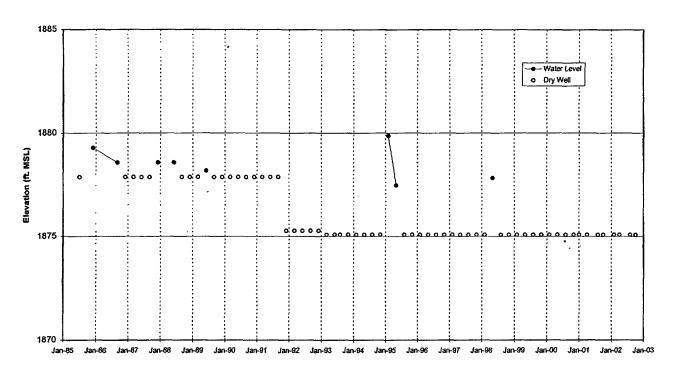
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-10 Figure A-10



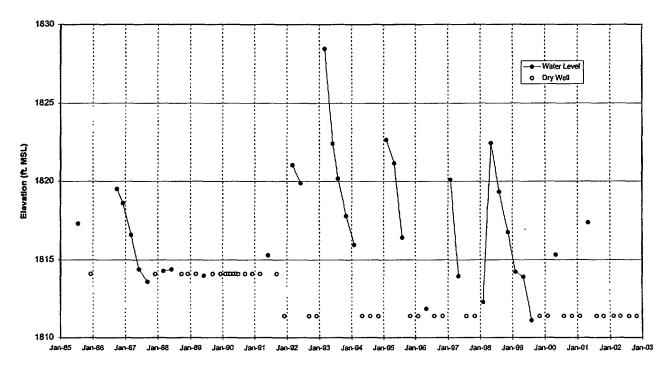
WATER LEVEL HYDROGRAPH Shallow Zone Well SH-11 Figure A-11



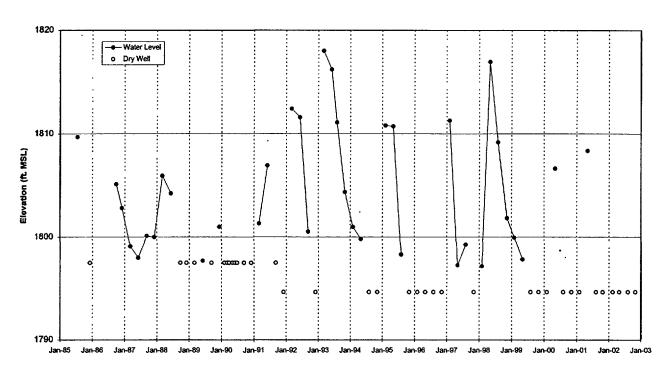
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-1 Figure A-12



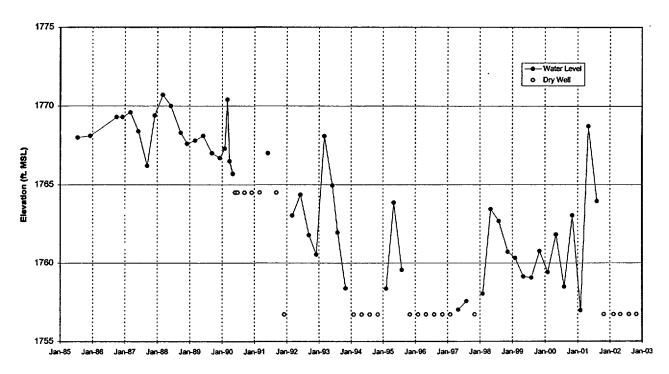
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-2 Figure A-13



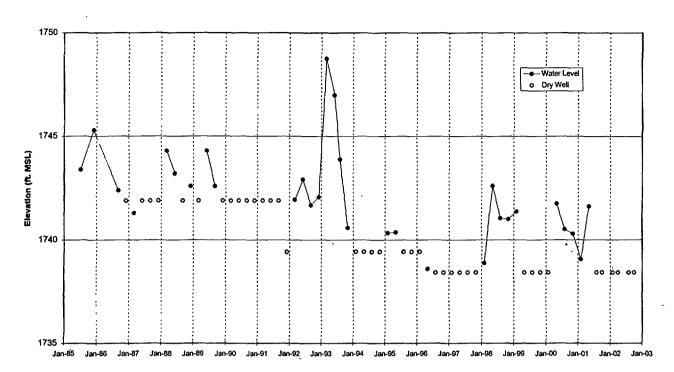
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-3 Figure A-14



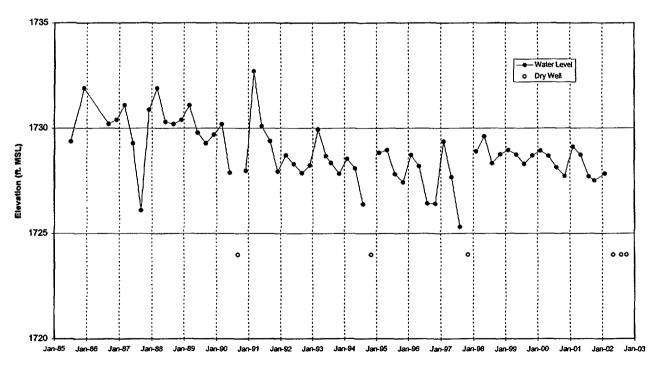
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-4 Figure A-15



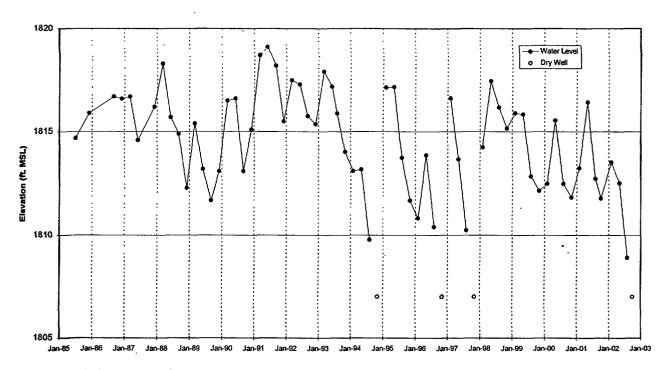
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-5 Figure A-16



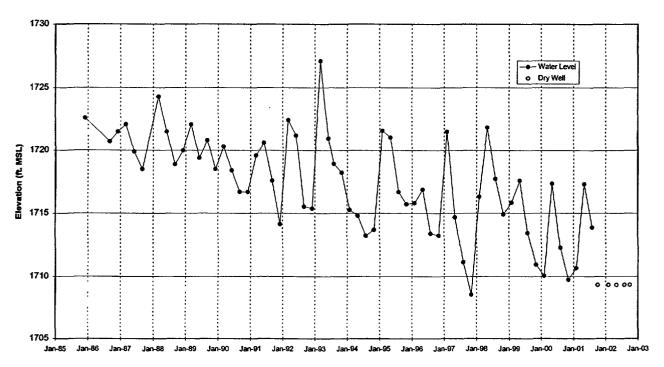
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-6 Figure A-17



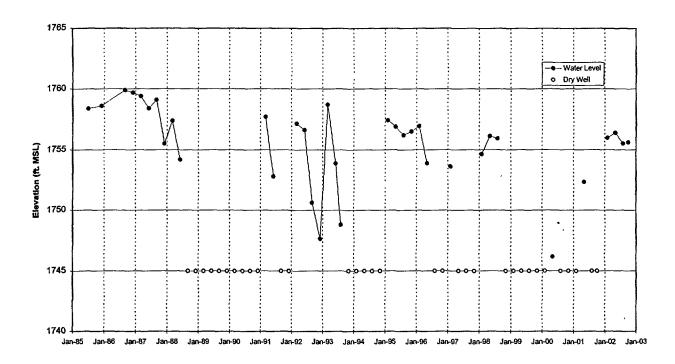
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-7 Figure A-18



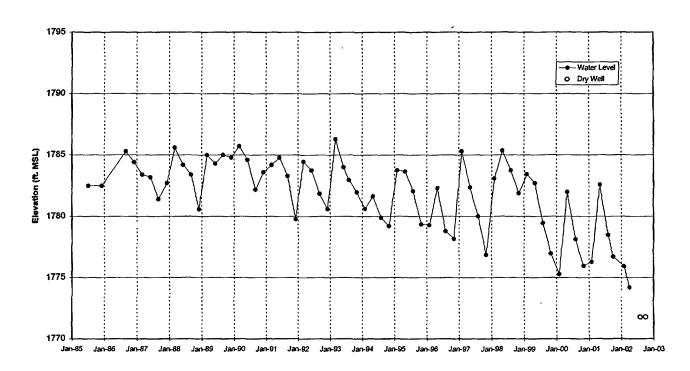
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-8 Figure A-19



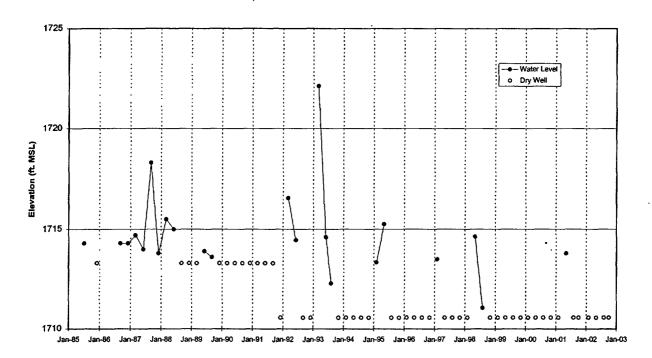
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-9 Figure A-20



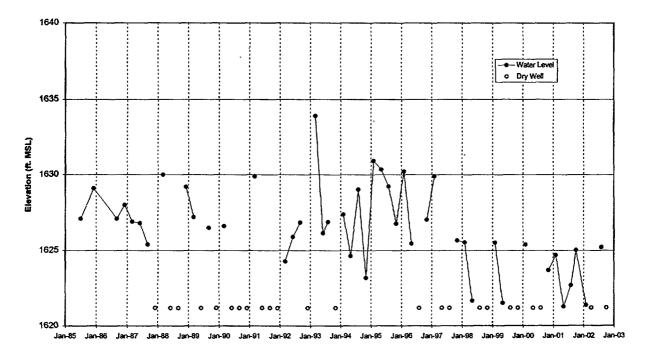
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-10 Figure A-21



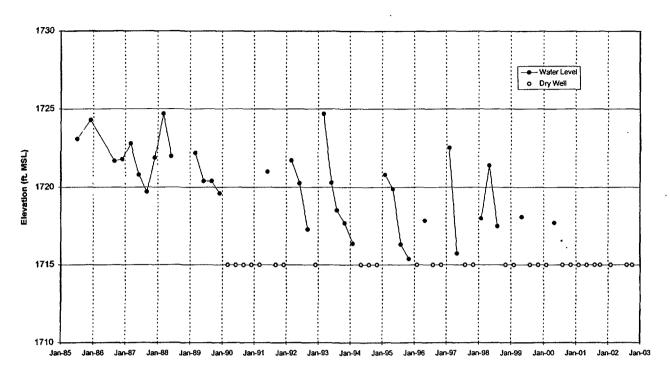
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-11 Figure A-22



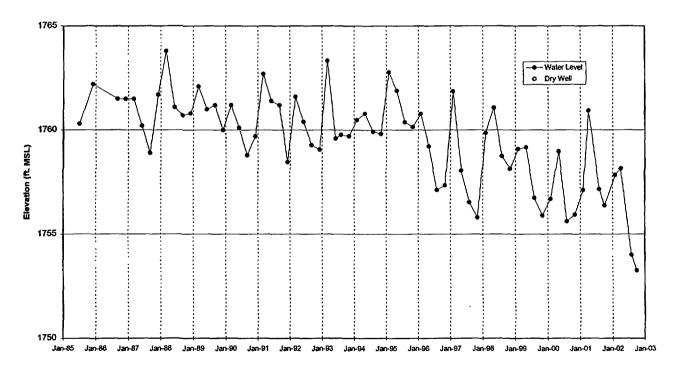
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-12 Figure A-23



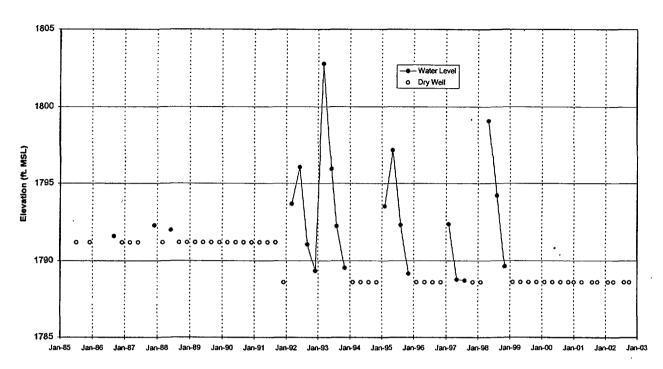
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-13 Figure A-24



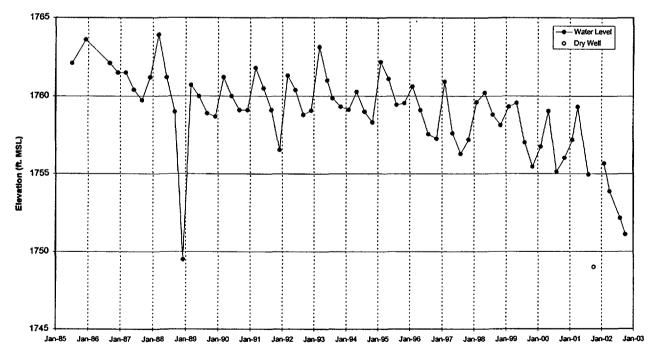
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-14 Figure A-25



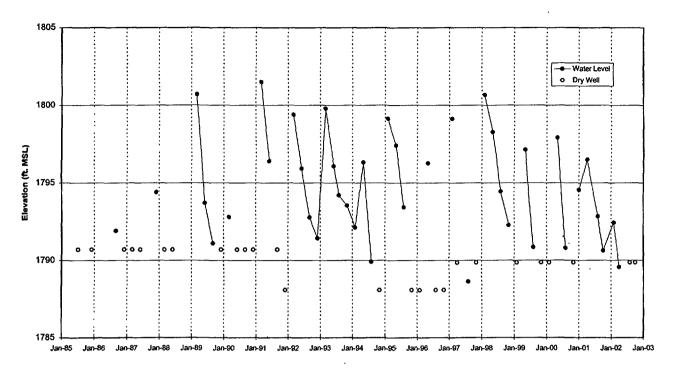
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-15 Figure A-26



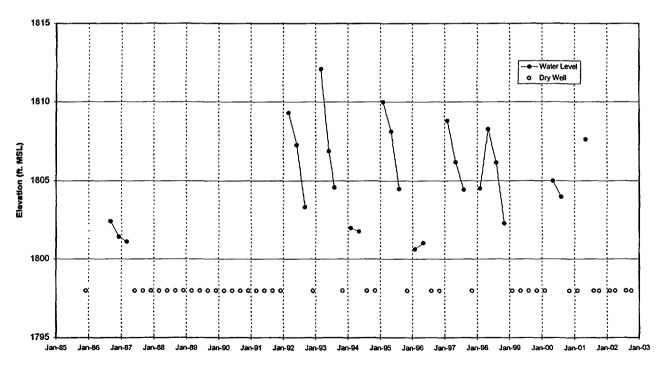
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-16 Figure A-27



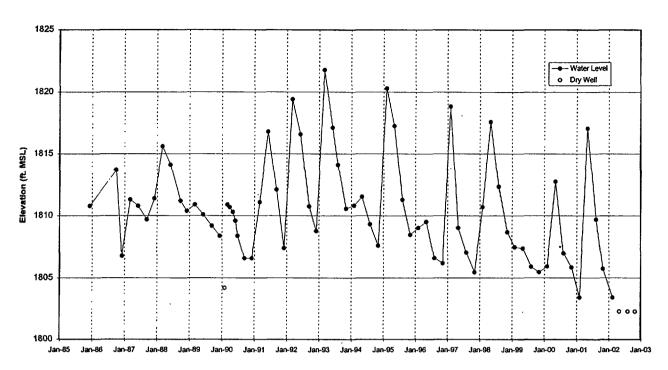
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-17 Figure A-28



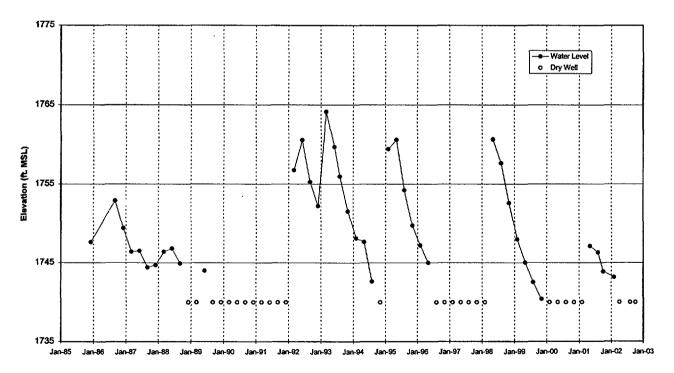
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-18 Figure A-29



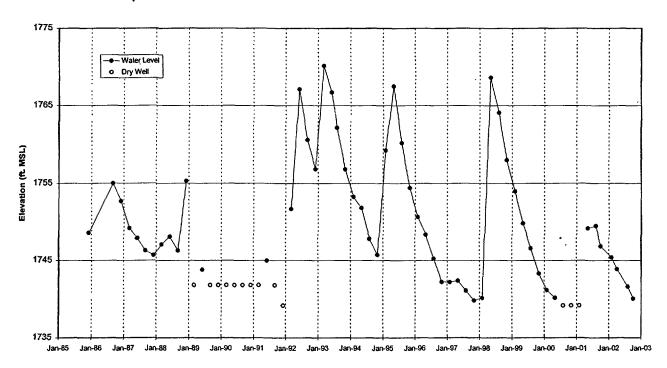
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-19 Figure A-30



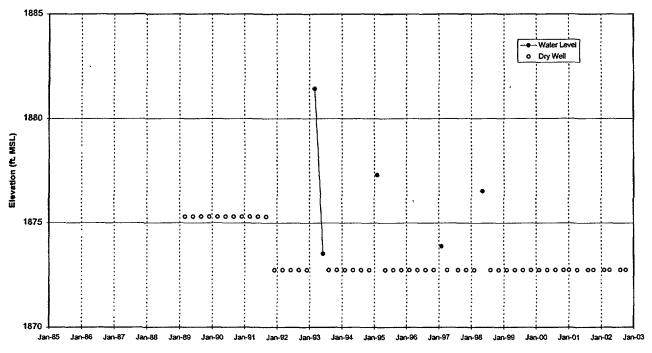
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-20 Figure A-31



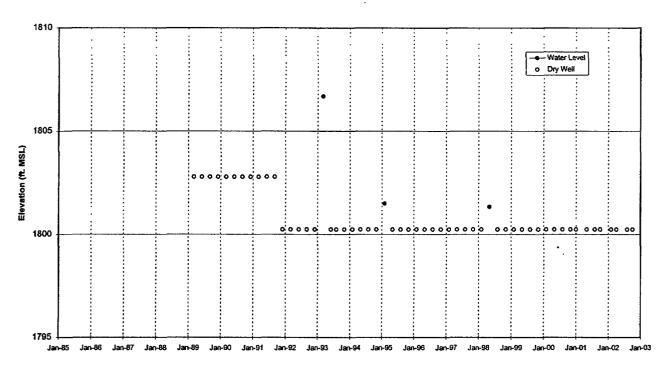
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-21 Figure A-32



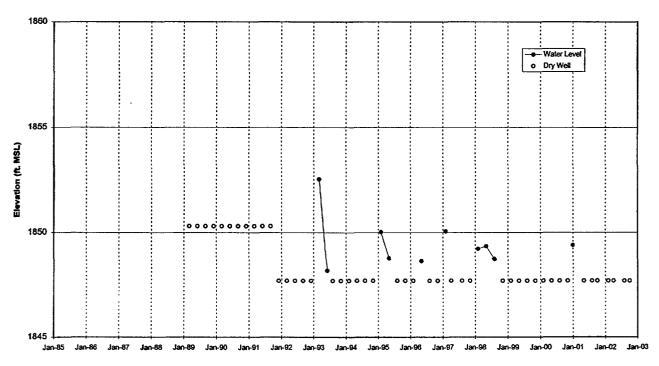
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-22 Figure A-33



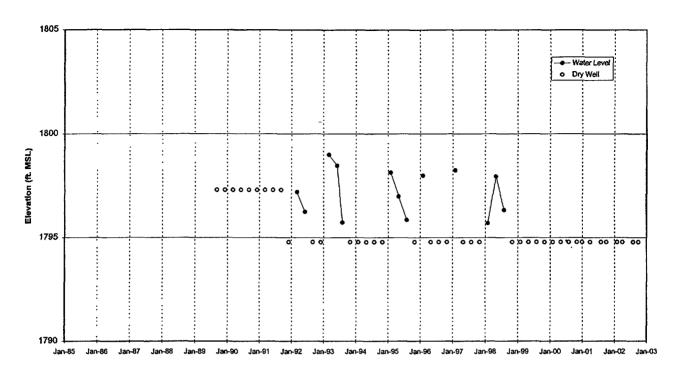
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-23 Figure A-34



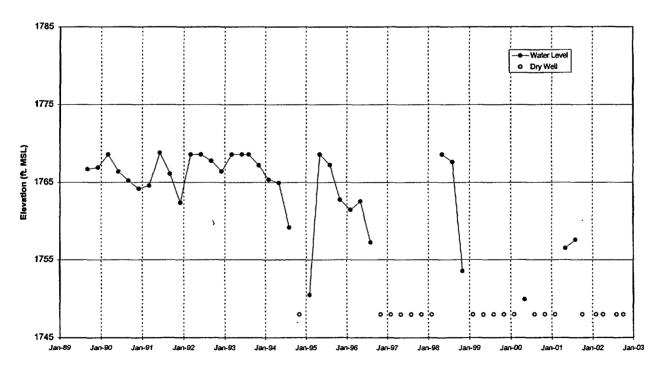
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-24 Figure A-35



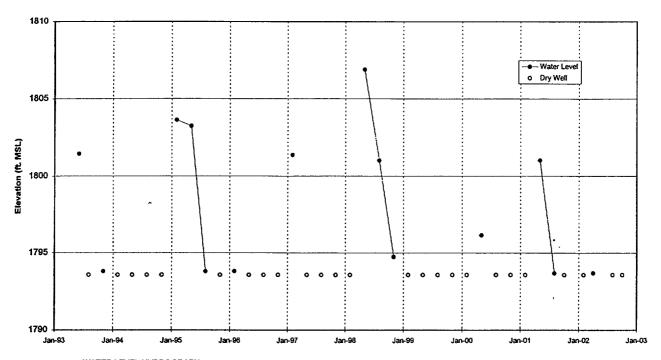
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-25 Figure A-36



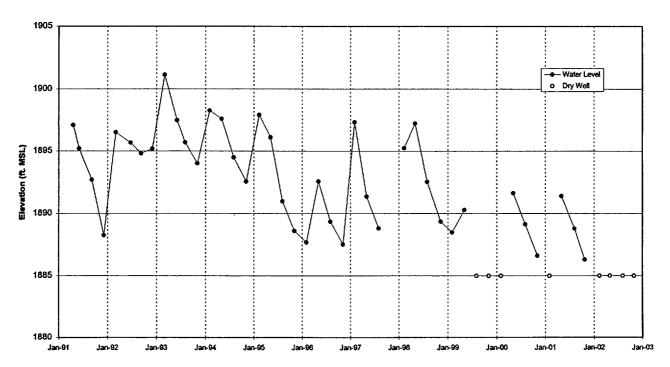
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-27 Figure A-37



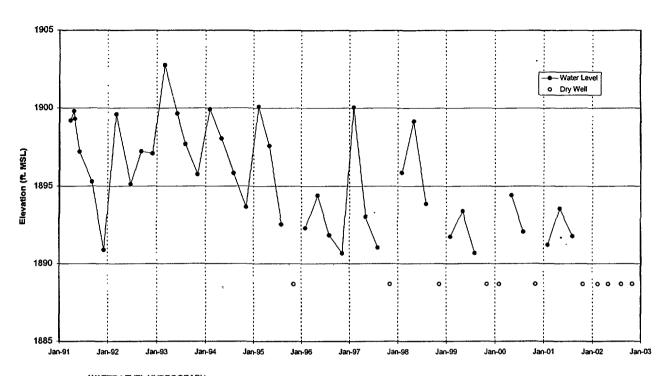
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-28 Figure A-38



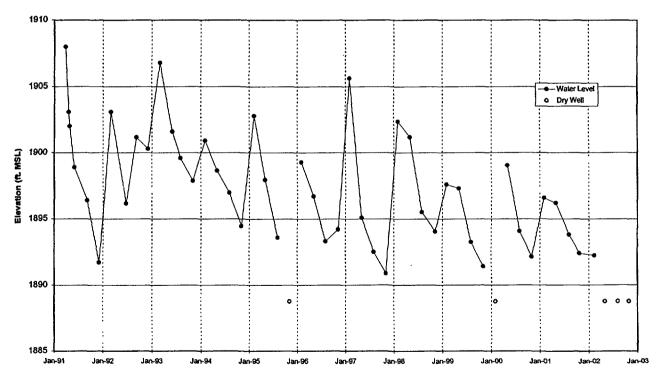
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-29 Figure A-39



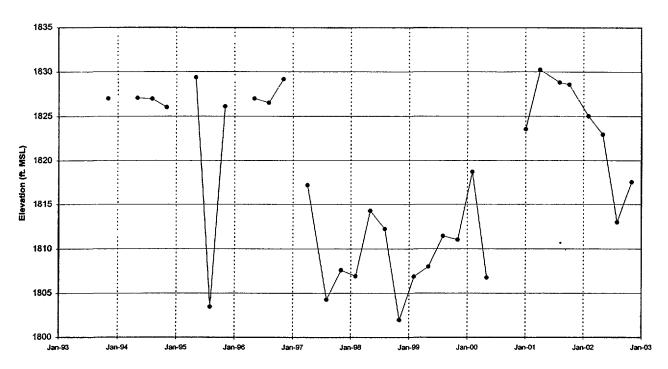
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-30 Figure A-40



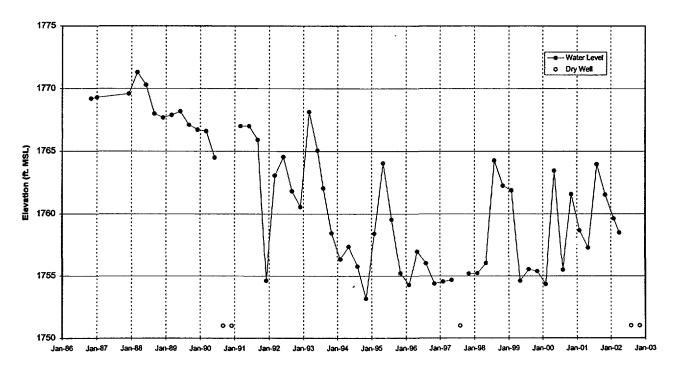
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-31 Figure A-41



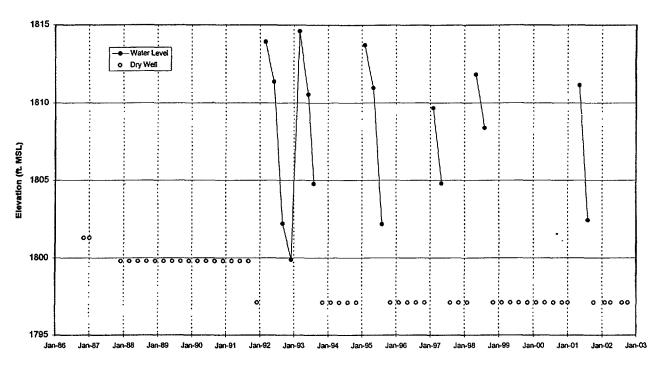
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-32 Figure A-42



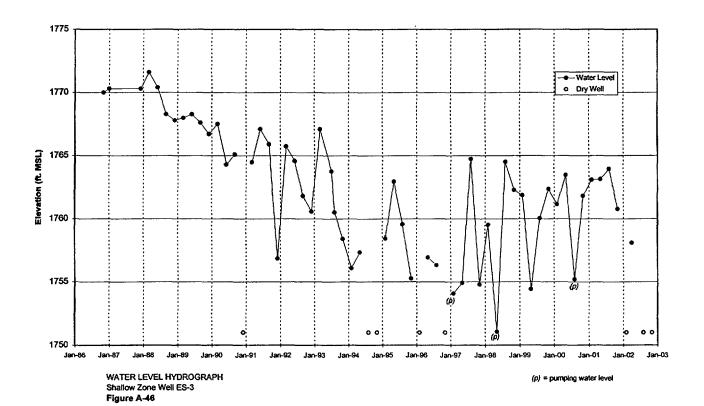
WATER LEVEL HYDROGRAPH Shallow Zone Well RS-54 Figure A-43

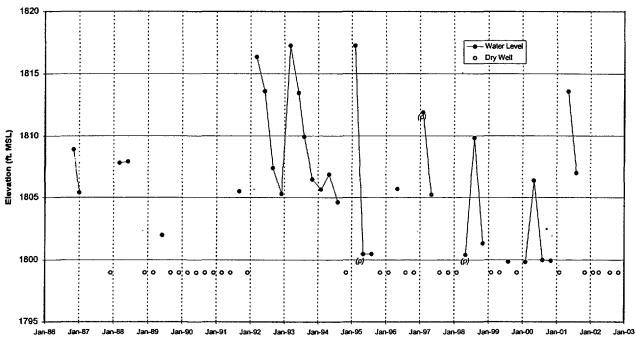


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-1 Figure A-44



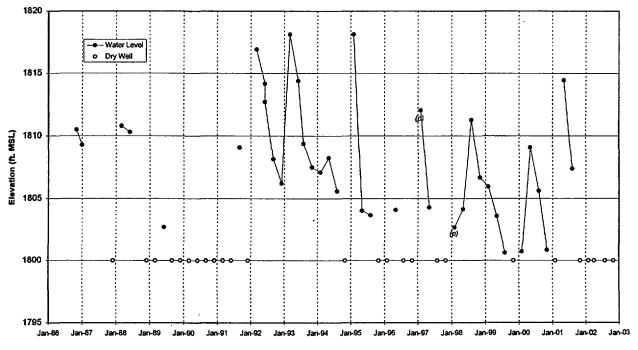
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-2 Figure A-45



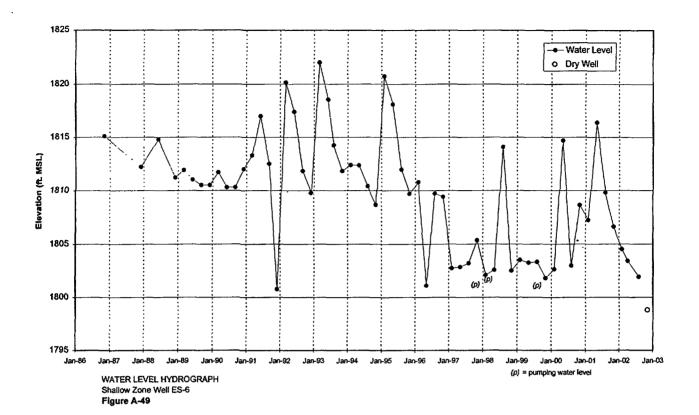


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-4 Figure A-47

(p) = pumping water level



WATER LEVEL HYDROGRAPH Shallow Zone Well ES-5 Figure A-48 (p) * pumping water level



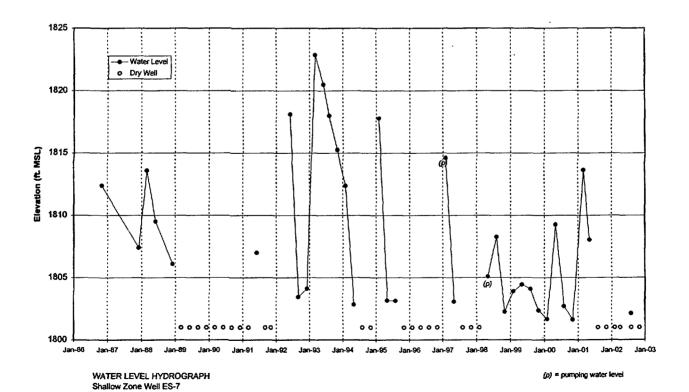
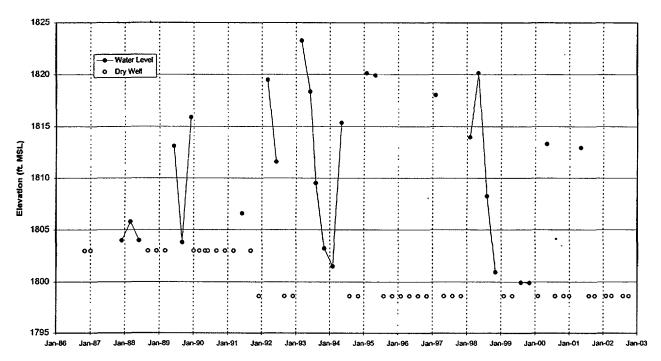
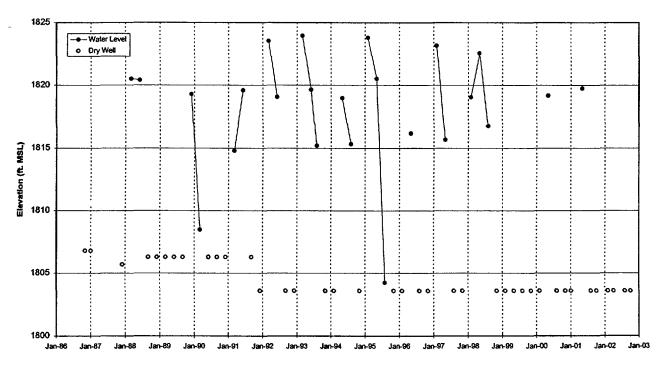


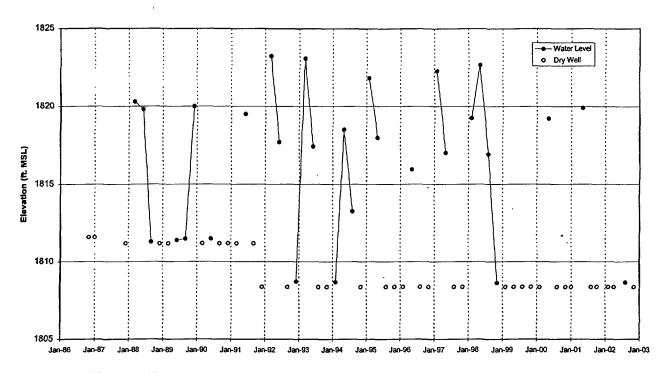
Figure A-50



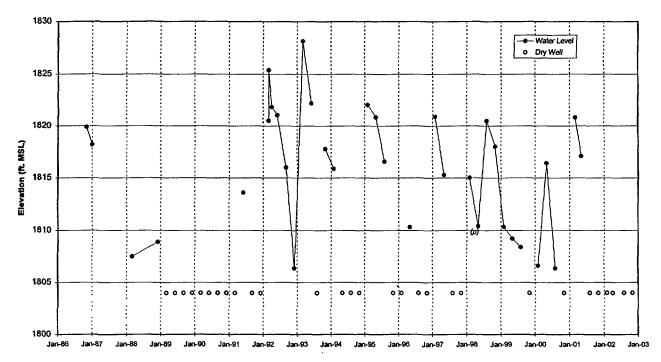
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-8 Figure A-51



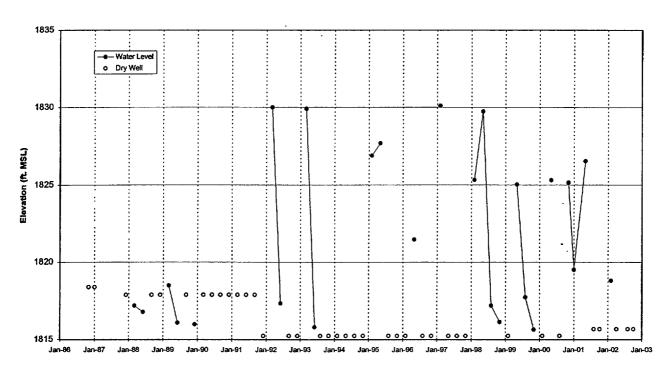
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-9 Figure A-52



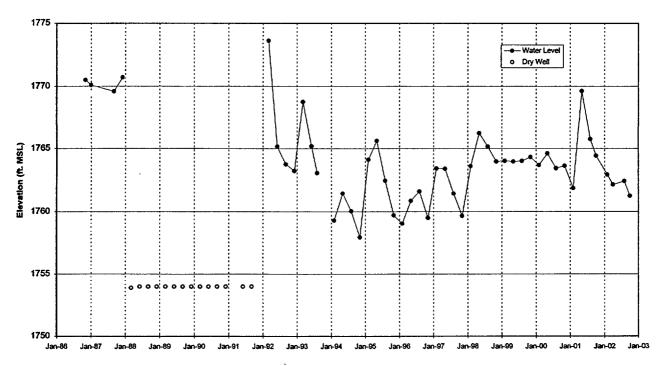
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-10 Figure A-53



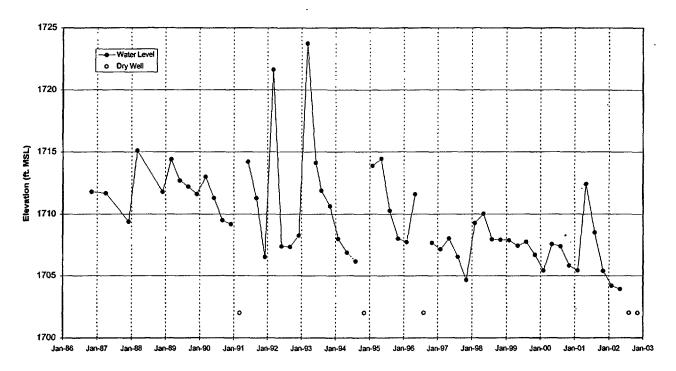
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-11 Figure A-54 (p) = pumping water level



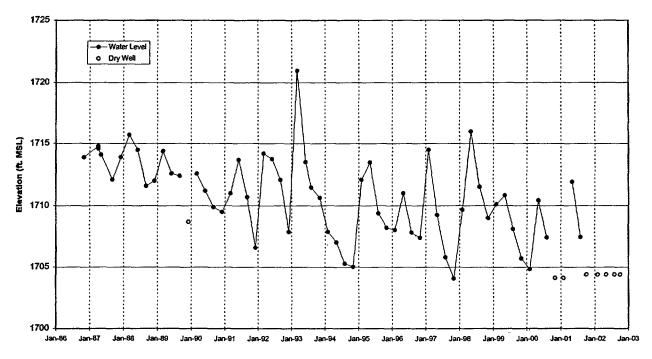
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-12 Figure A-55



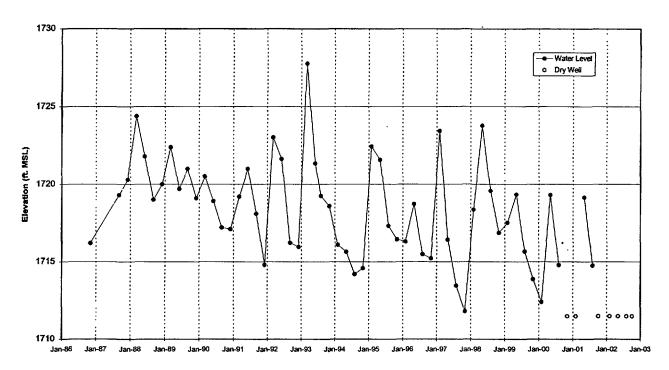
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-13 Figure A-56



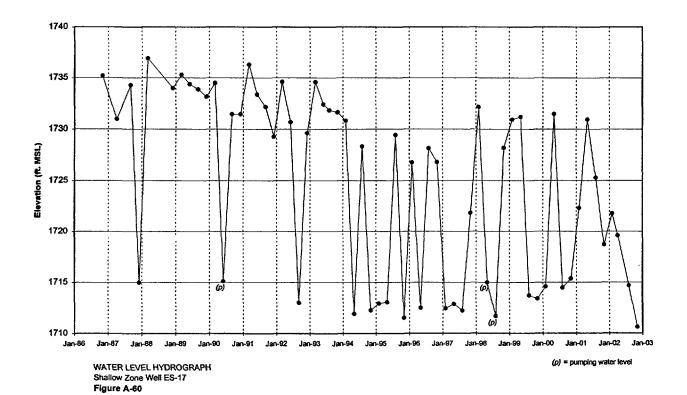
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-14 Figure A-57

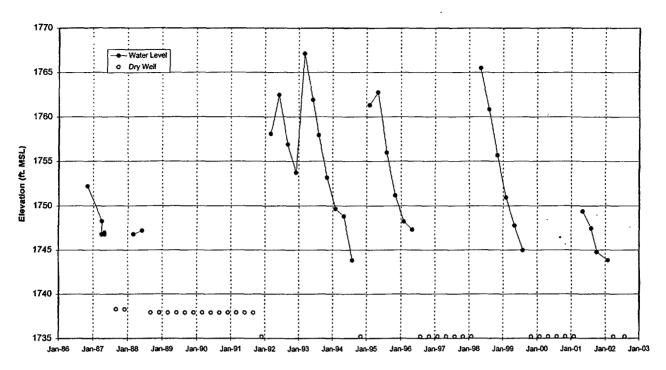


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-15 Figure A-58

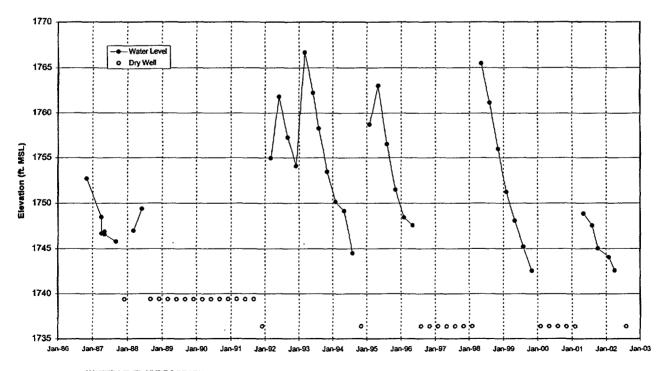


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-16 Figure A-59

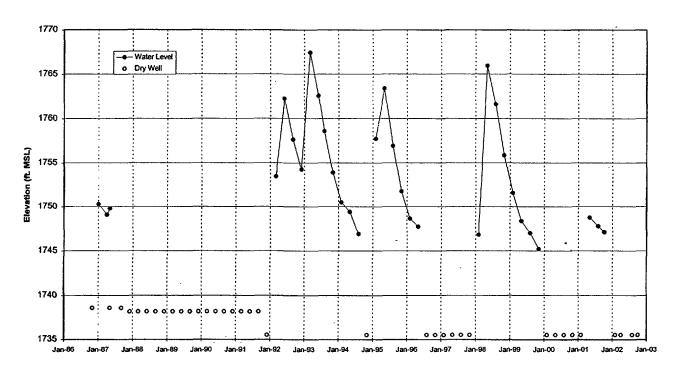




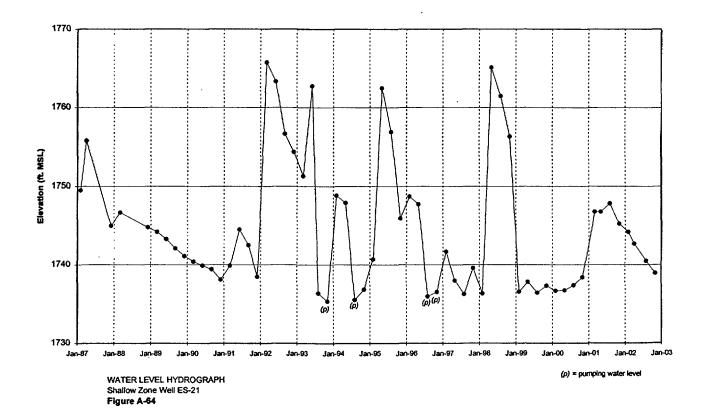
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-18 Figure A-61

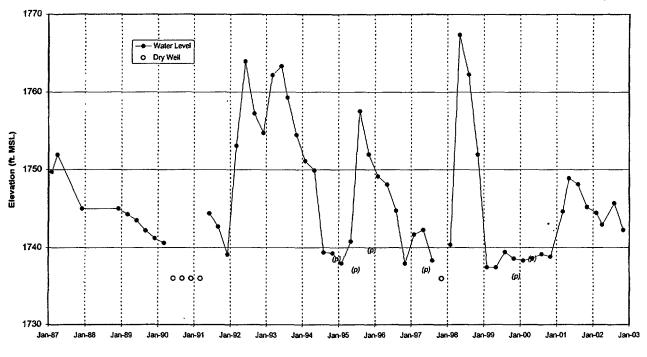


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-19 Figure A-62

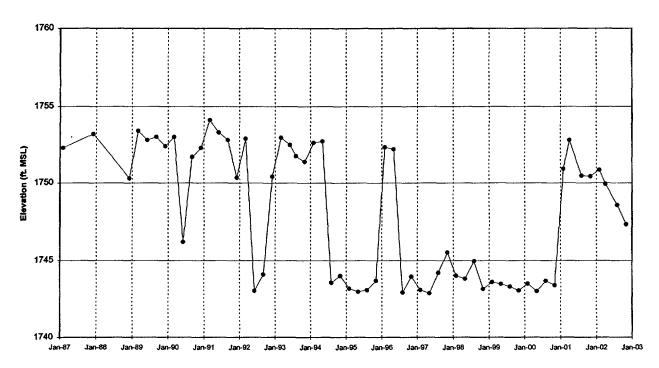


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-20 Figure A-63

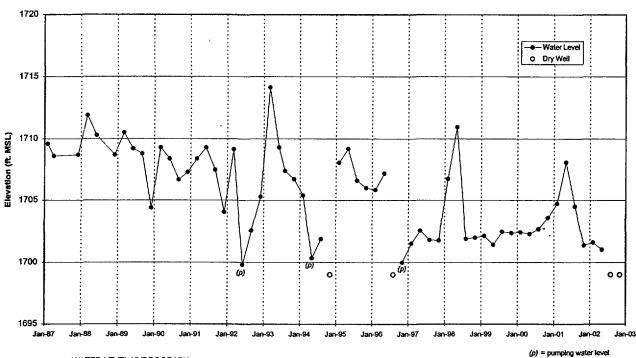


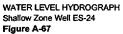


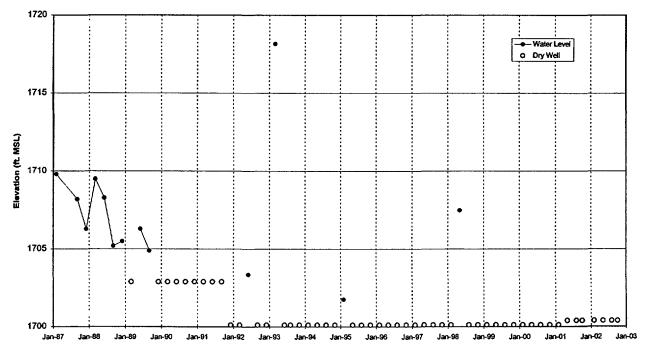
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-22 Figure A-85 (p) = pumping water level



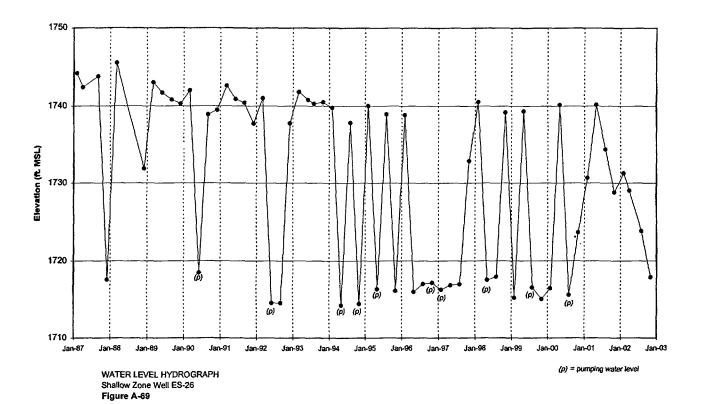
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-23 Figure A-66

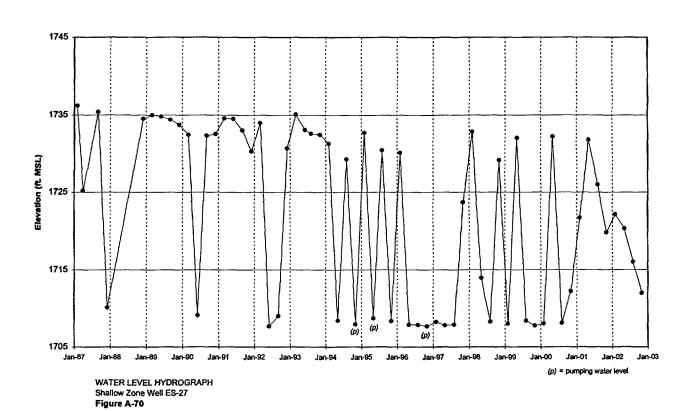


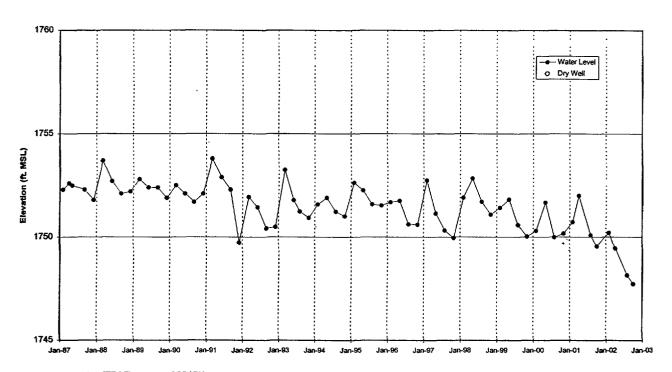




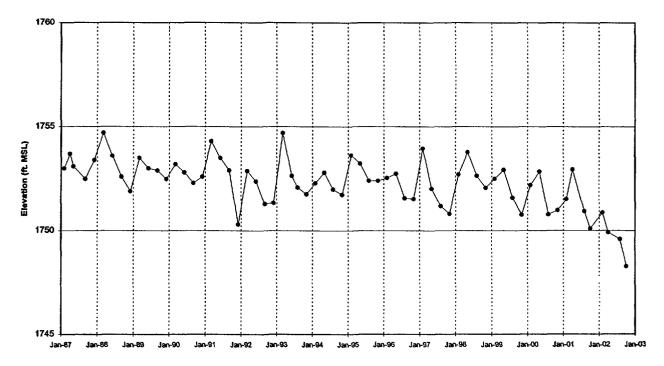
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-25 Figure A-68



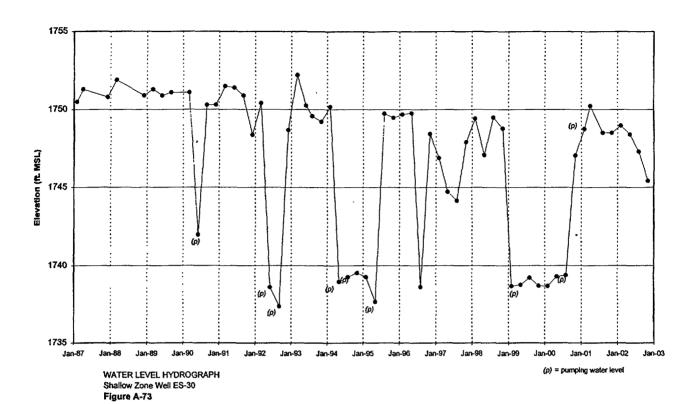


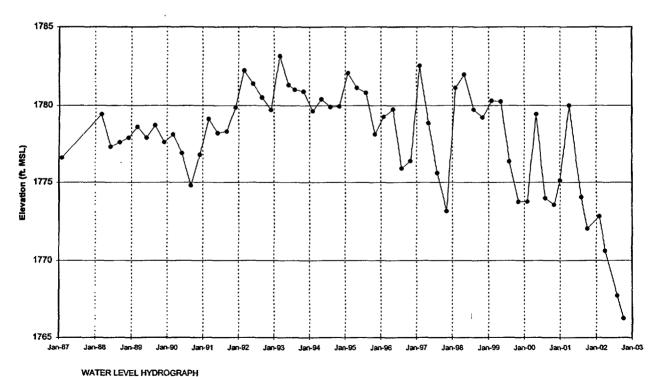


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-28 Figure A-71

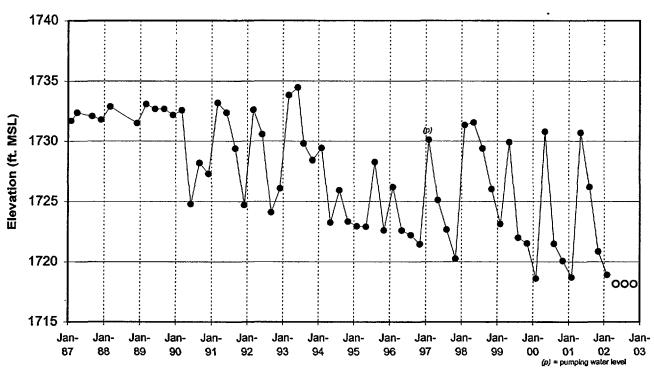


WATER LEVEL HYDROGRAPH Shallow Zone Well ES-29 Figure A-72

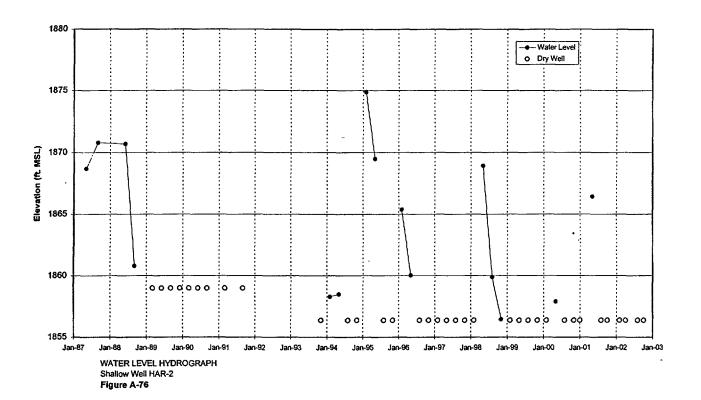


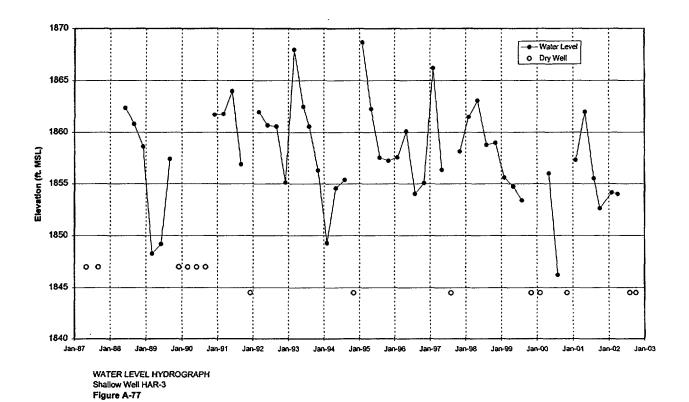


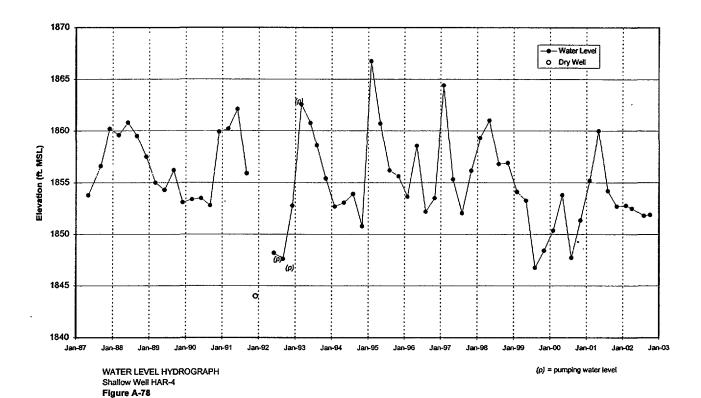
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-31 Figure A-74

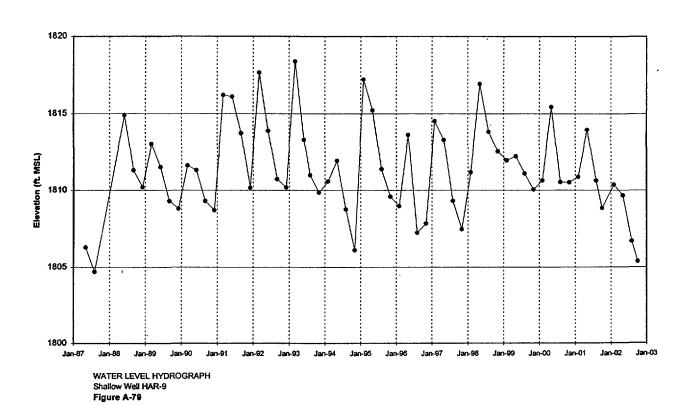


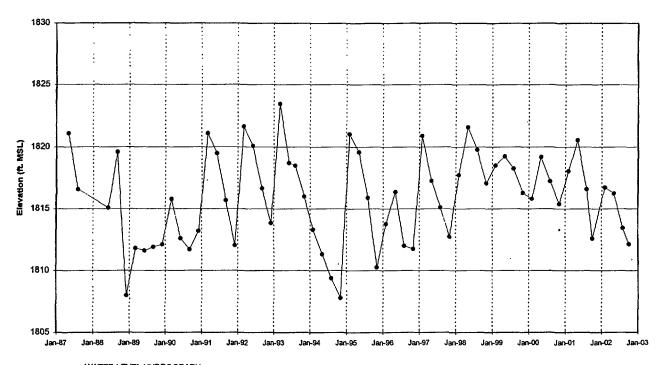
WATER LEVEL HYDROGRAPH Shallow Zone Well ES-32 Figure A-75



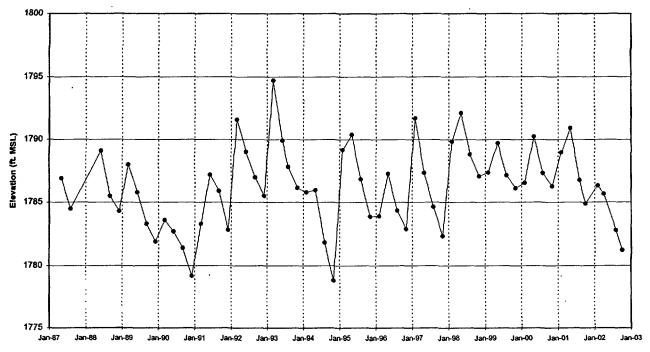




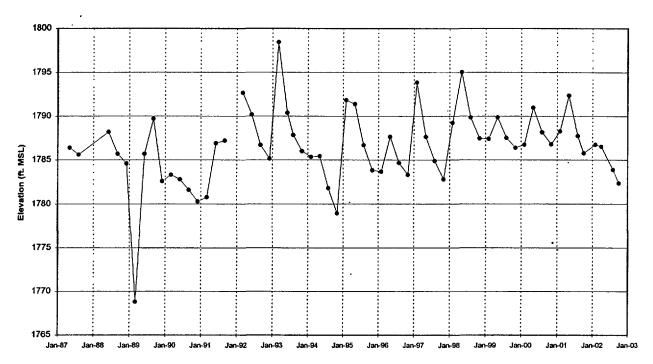




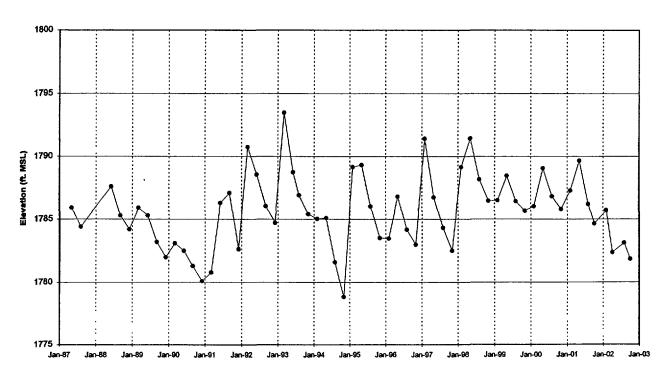
WATER LEVEL HYDROGRAPH Shallow Well HAR-11 Figure A-80



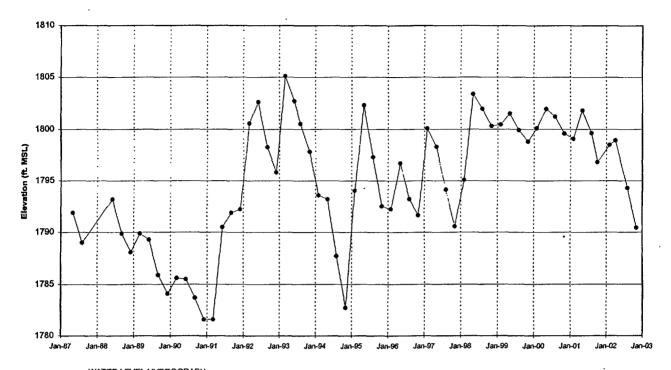
WATER LEVEL HYDROGRAPH Shallow Well HAR-12 Figure A-81



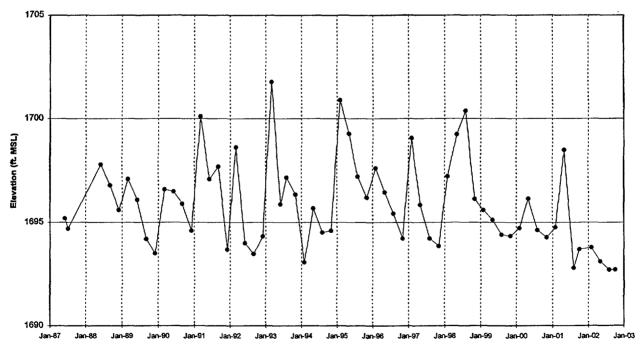
WATER LEVEL HYDROGRAPH Shallow Well HAR-13 Figure A-82



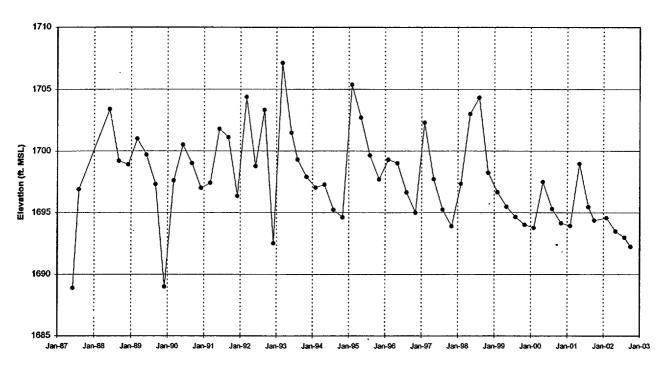
WATER LEVEL HYDROGRAPH Shallow Well HAR-14 Figure A-83



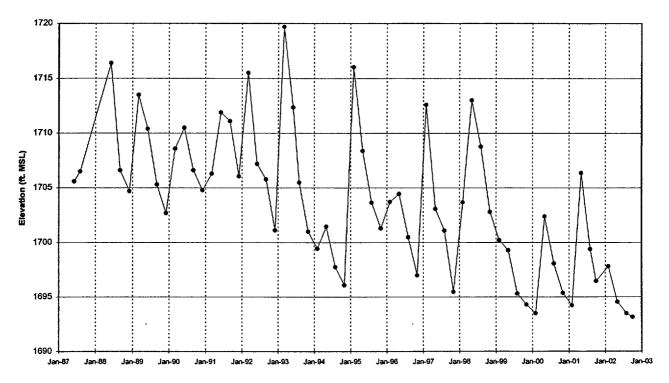
WATER LEVEL HYDROGRAPH Shallow Well HAR-15 Figure A-84



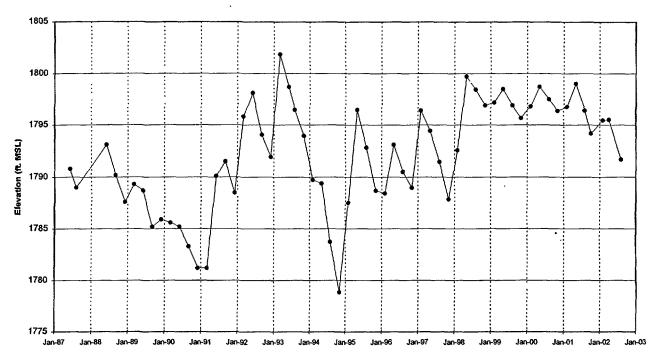
WATER LEVEL HYDROGRAPH Shallow Well HAR-27 Figure A-85



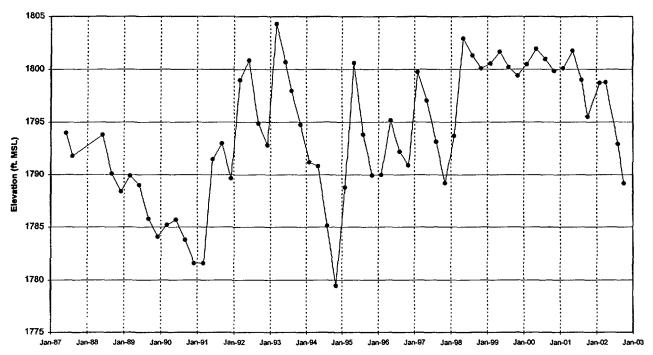
WATER LEVEL HYDROGRAPH Shallow Well HAR-28 Figure A-86



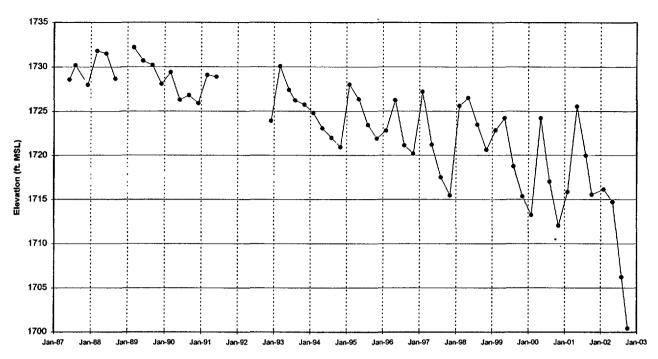
WATER LEVEL HYDROGRAPH Shallow Well HAR-29 Figure A-87



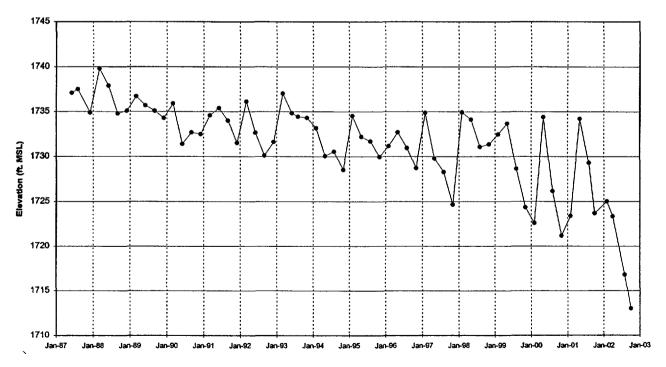
WATER LEVEL HYDROGRAPH Shallow Well HAR-30 Figure A-88



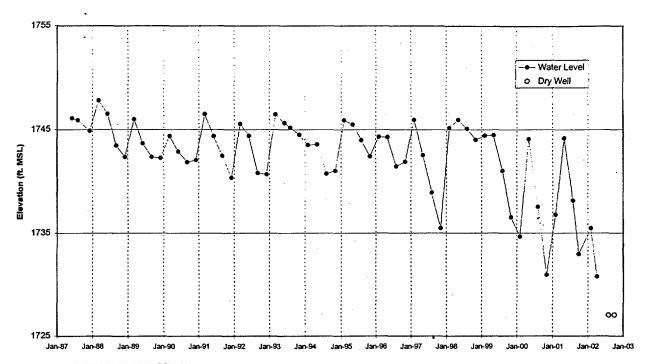
WATER LEVEL HYDROGRAPH Shallow Well HAR-31 Figure A-89



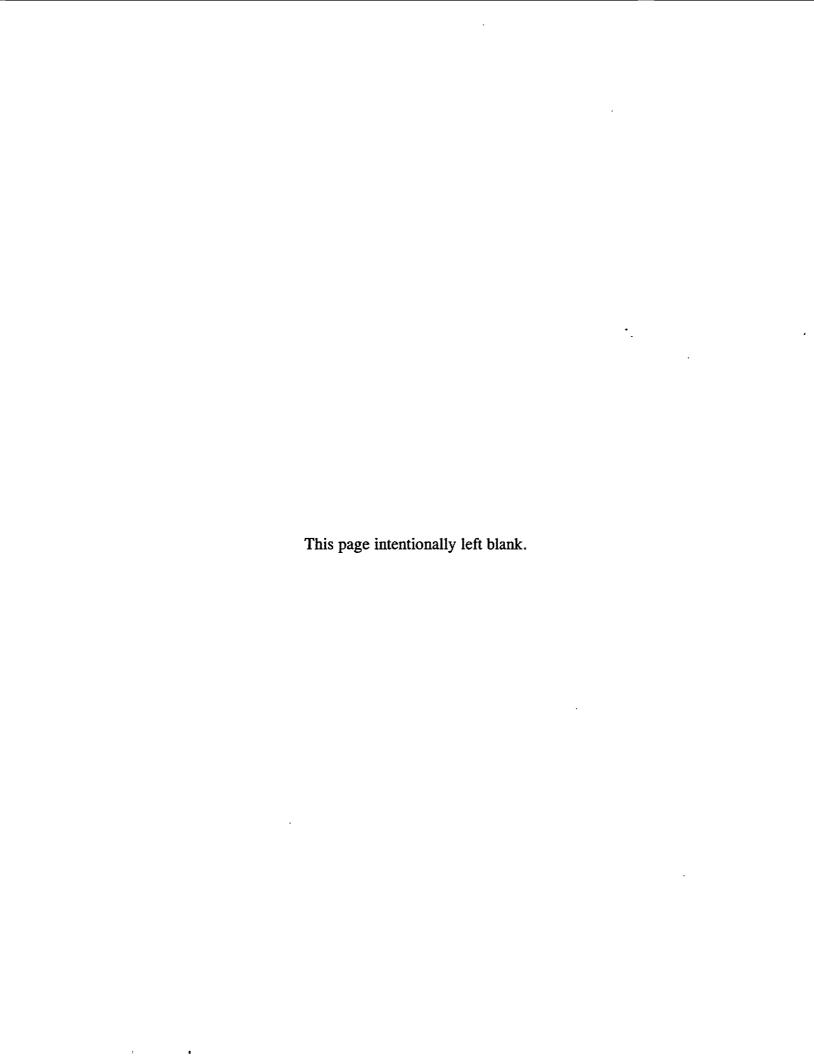
WATER LEVEL HYDROGRAPH Shallow Well HAR-32 Figure A-90

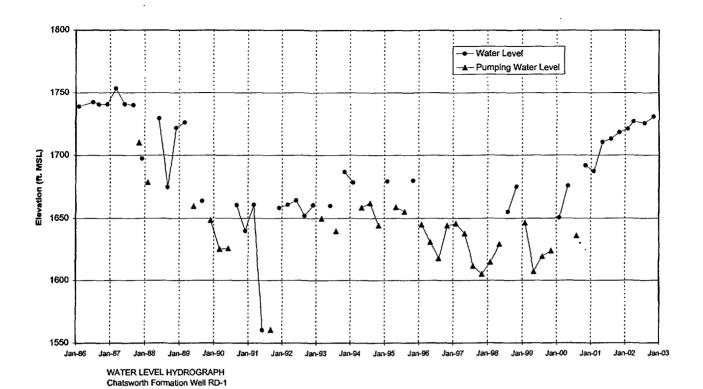


WATER LEVEL HYDROGRAPH Shallow Well HAR-33 Figure A-91



WATER LEVEL HYDROGRAPH Shallow Well HAR-34 Figure A-92





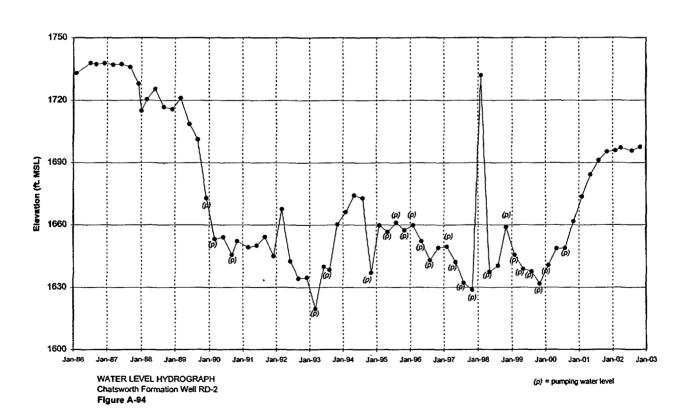
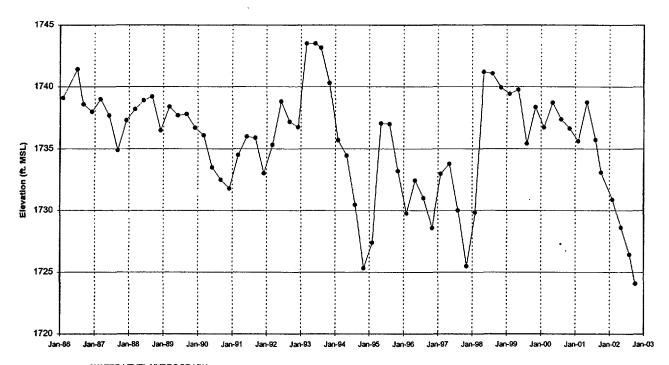
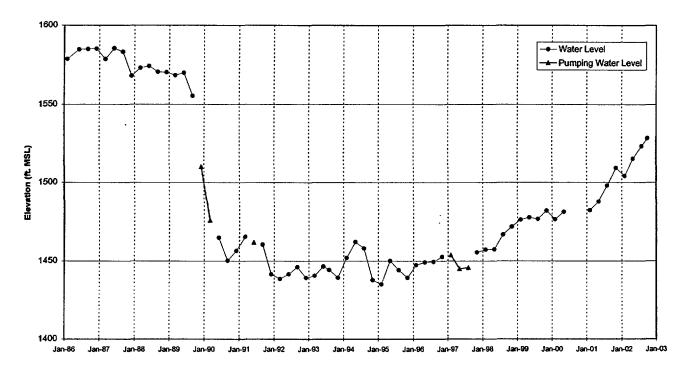


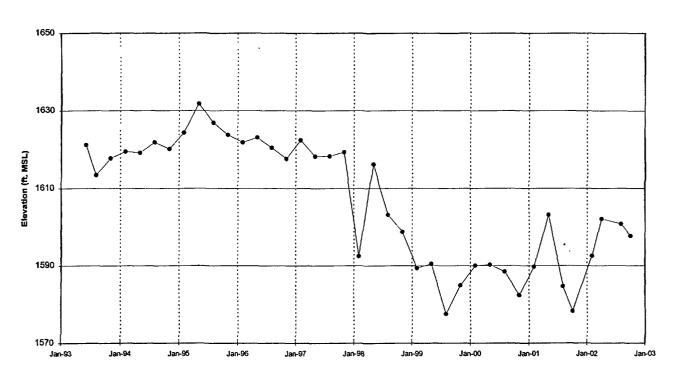
Figure A-93



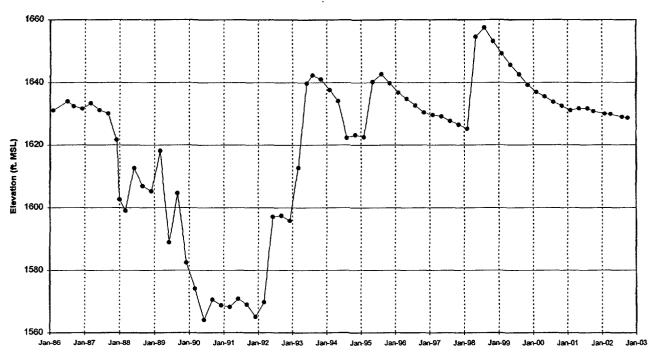
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-3 Figure A-95



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-4 Figure A-96

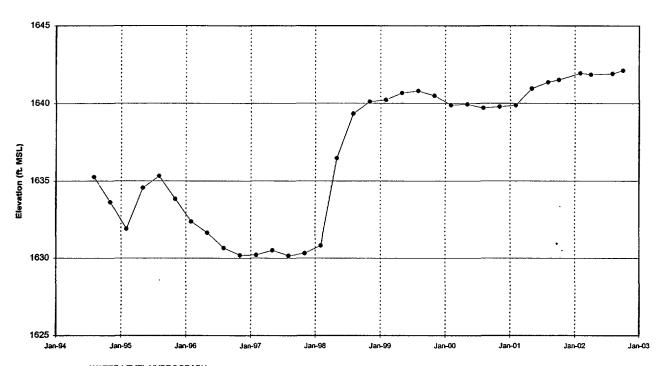


WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-5A Figure A-97

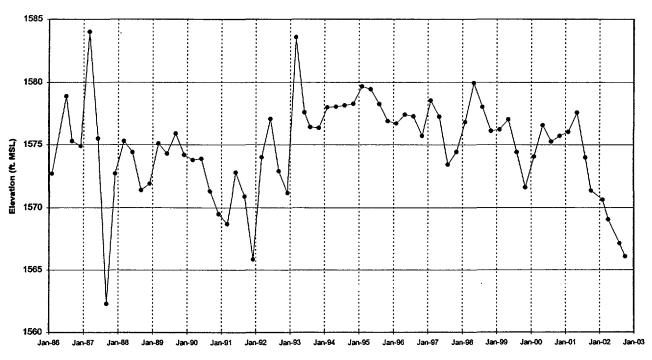


WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-58* Figure A-98

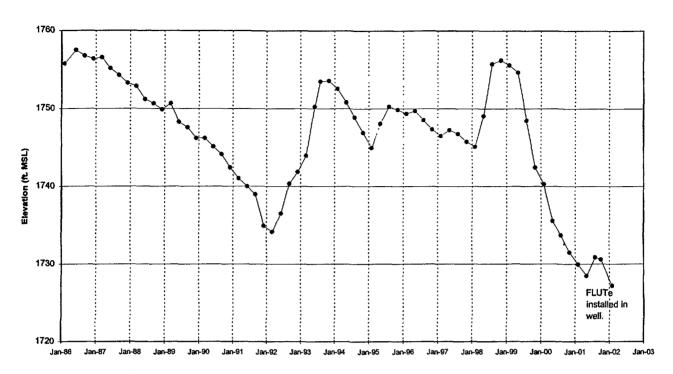
* Well known as RD-5 prior to 05/93



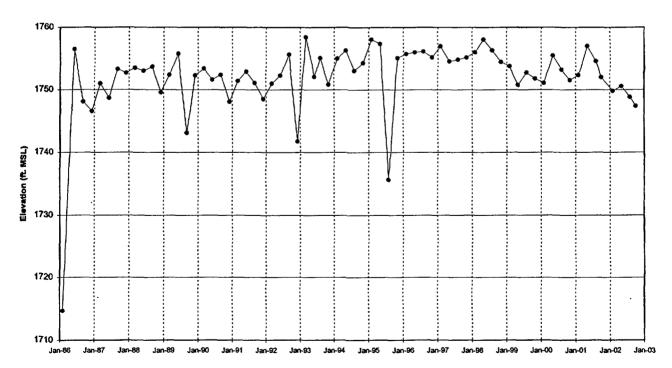
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-5C Figure A-99



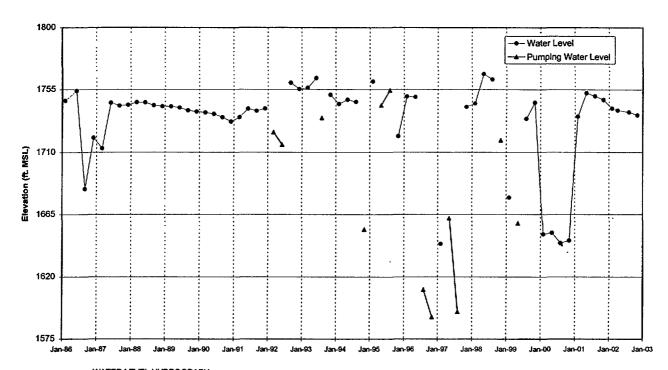
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-6 Figure A-100



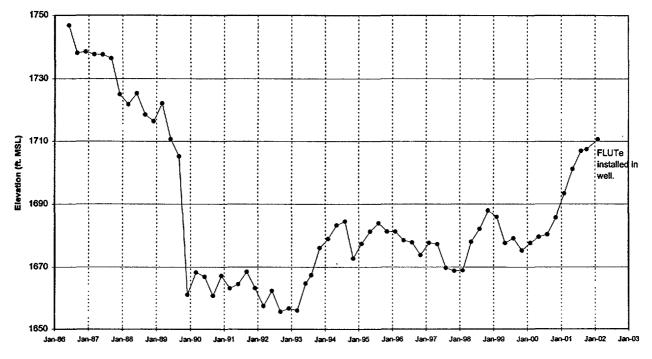
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-7 Figure A-101



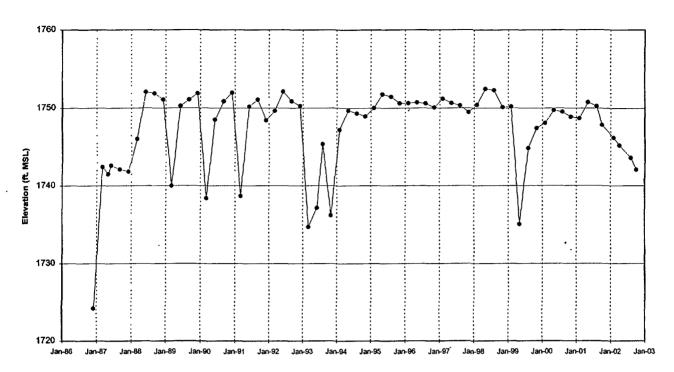
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-8 Figure A-102



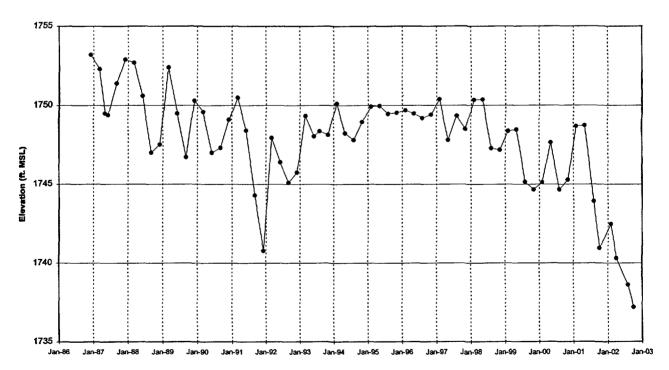
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-9 Figure A-103



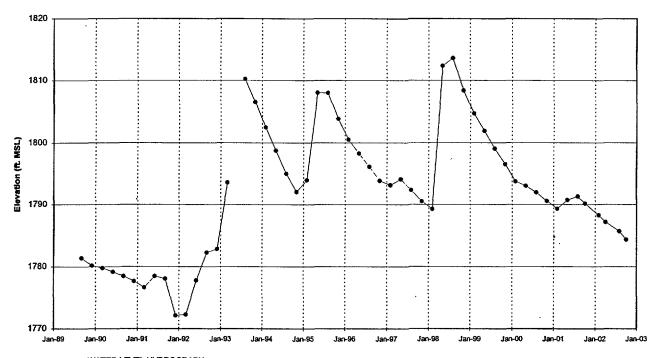
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-10 Figure A-104



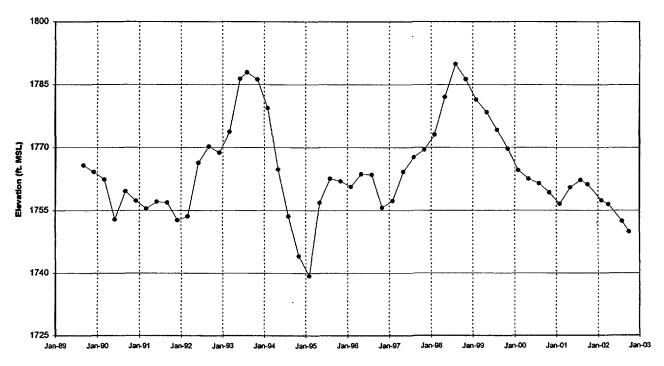
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-11 Figure A-105



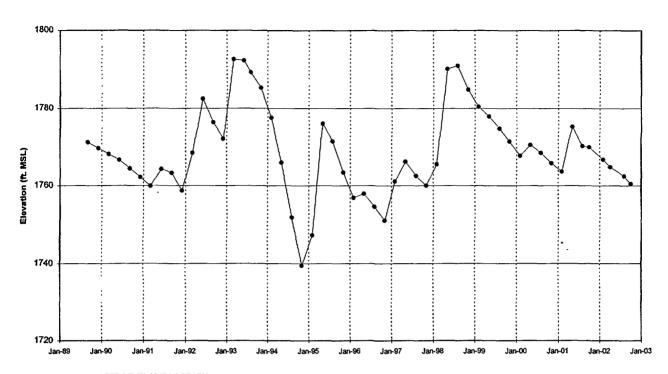
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-12 Figure A-106



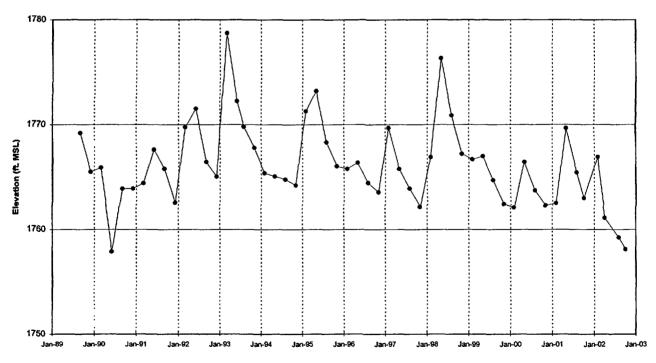
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-13 Figure A-107



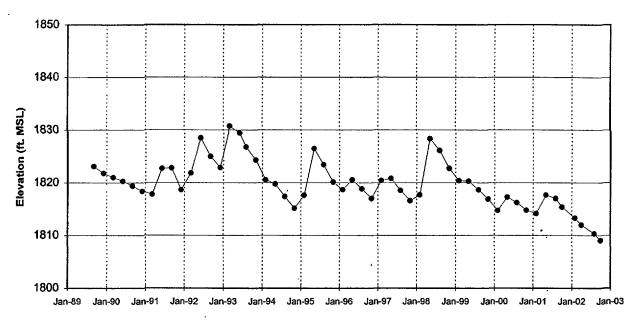
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-14 Figure A-108



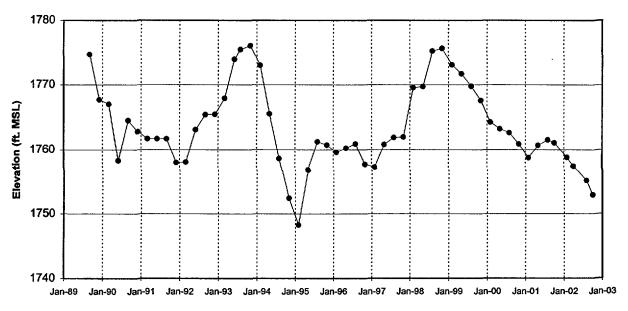
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-15 Figure A-109



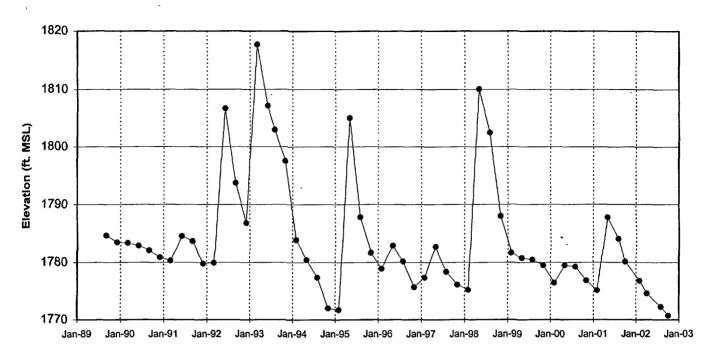
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-16 Figure A-110



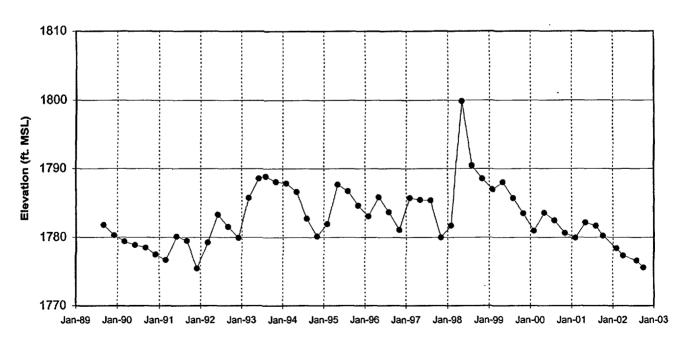
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-17 Figure A-111



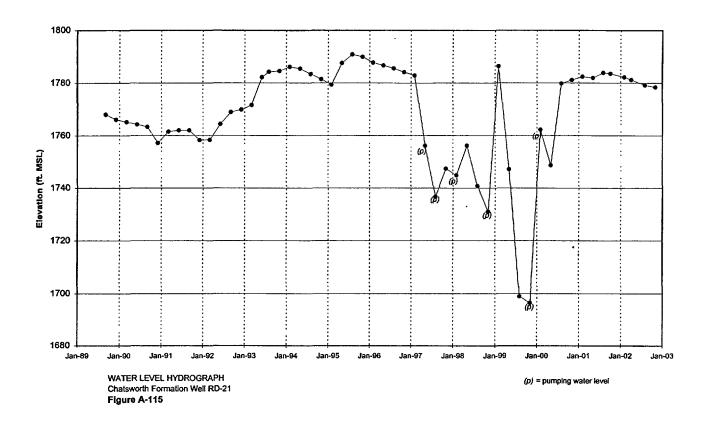
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-18 Figure A-112

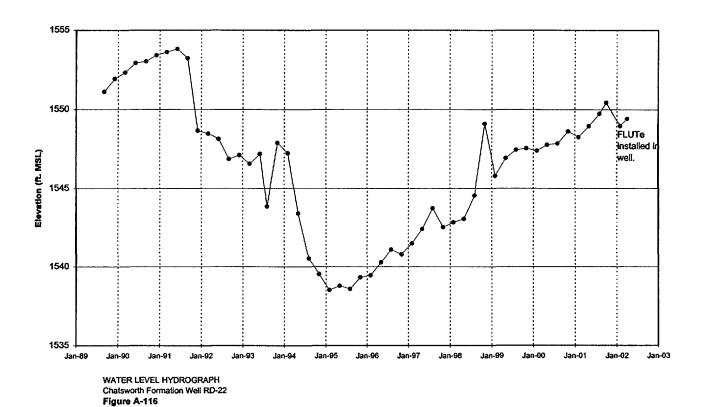


WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-19 Figure A-113

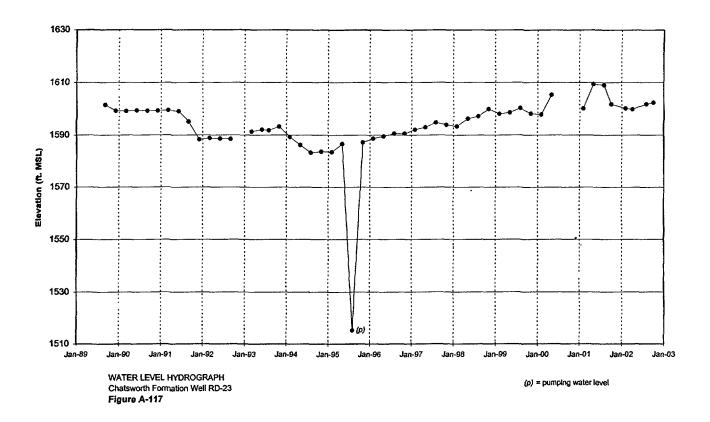


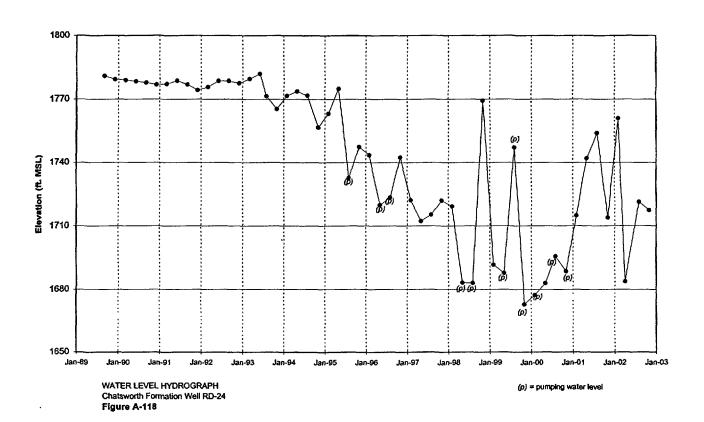
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-20 Figure A-114

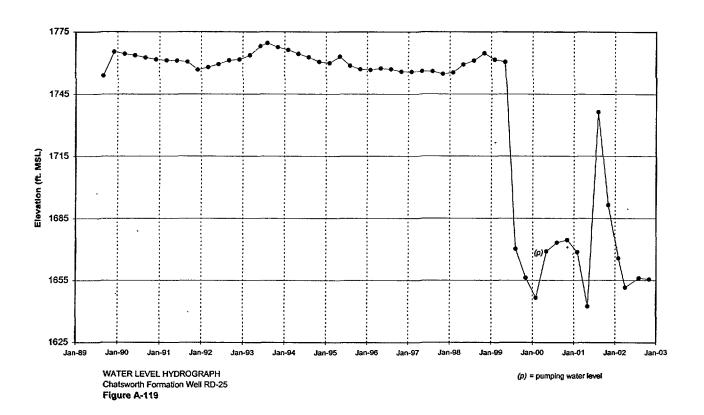




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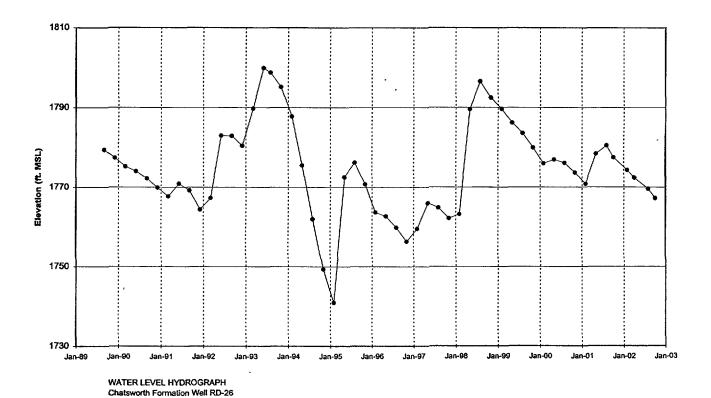
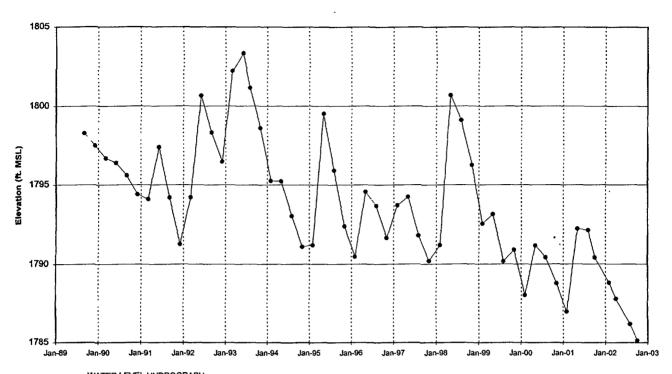
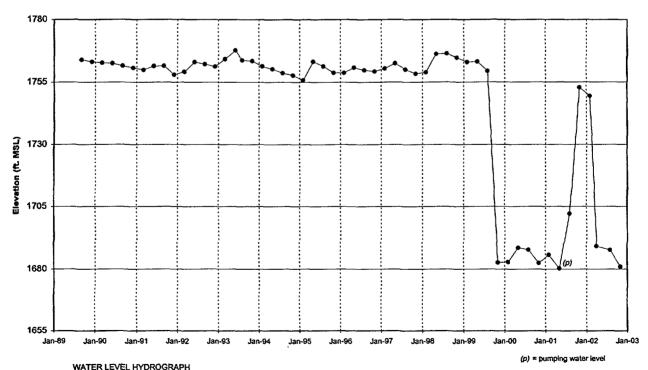


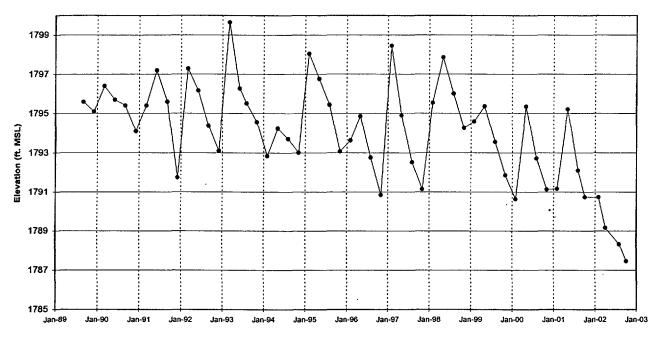
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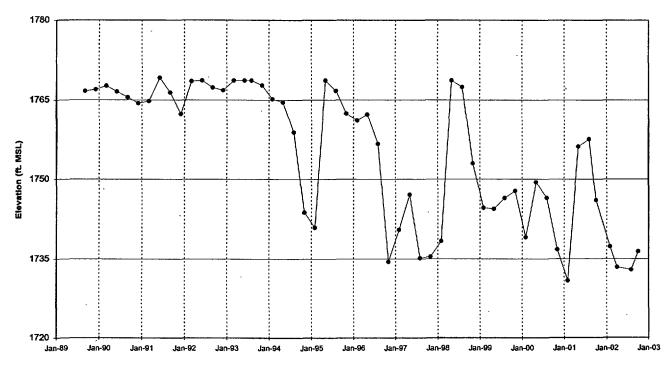
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-27 Figure A-121



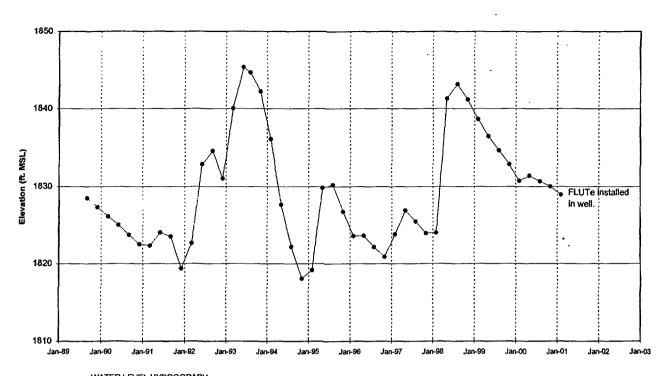
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-28 Figure A-122



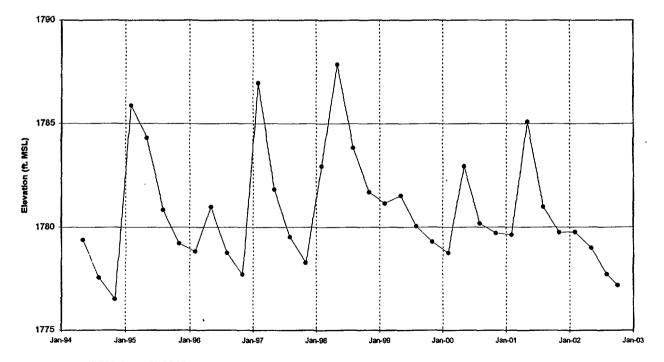
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-29 Figure A-123



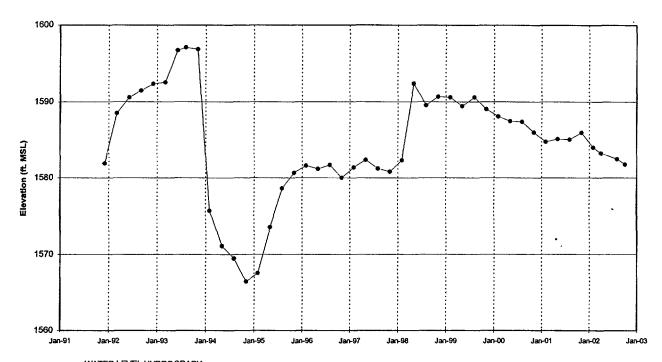
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-30 Figure A-124



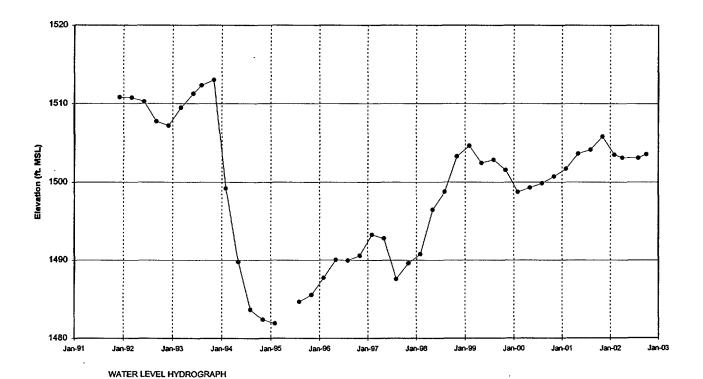
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-31 Figure A-125



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-32 Figure A-126



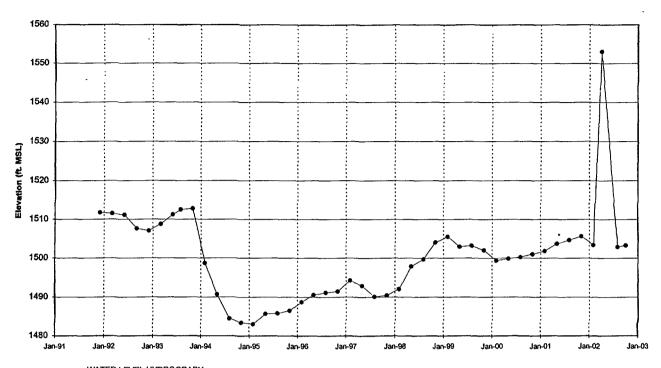
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-33A Figure A-127



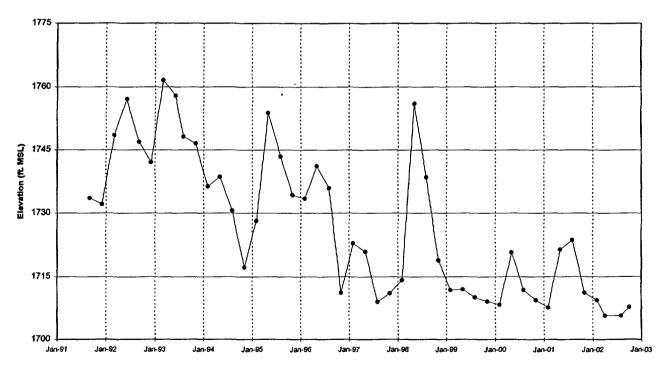
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Figure A-128

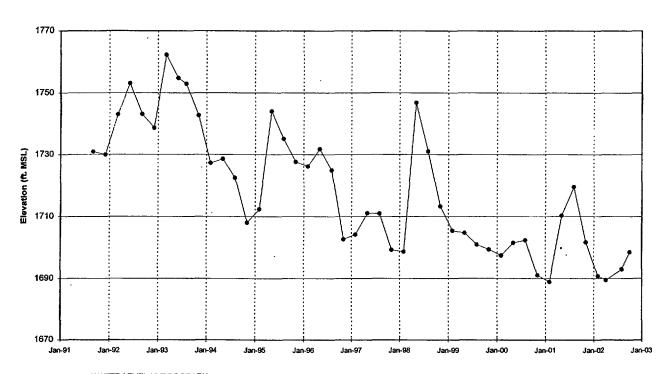
Chatsworth Formation Well RD-33B



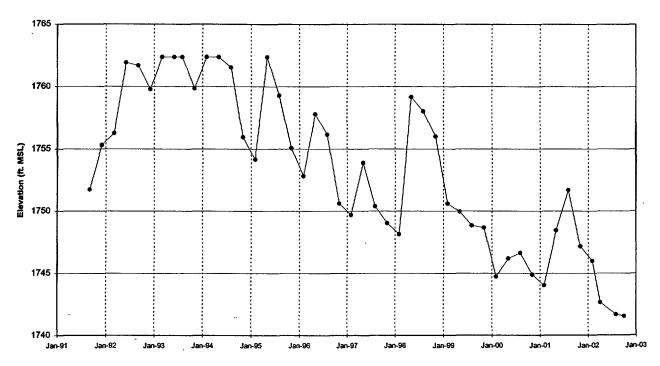
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-33C Figure A-129



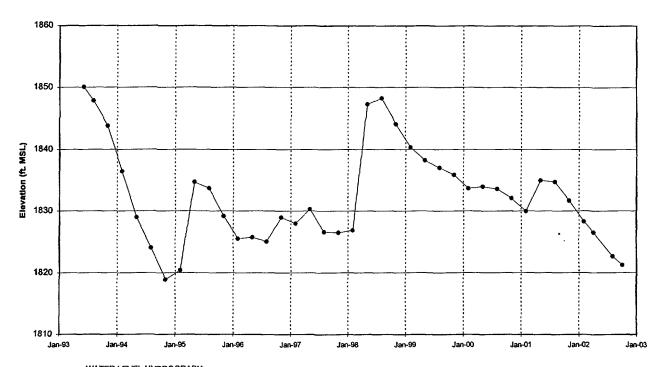
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-34A Figure A-130



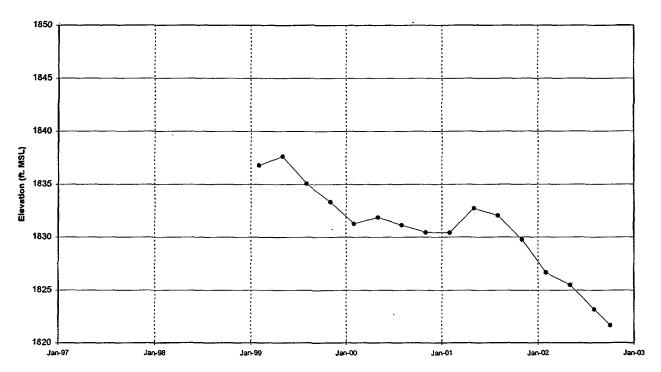
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-34B Figure A-131



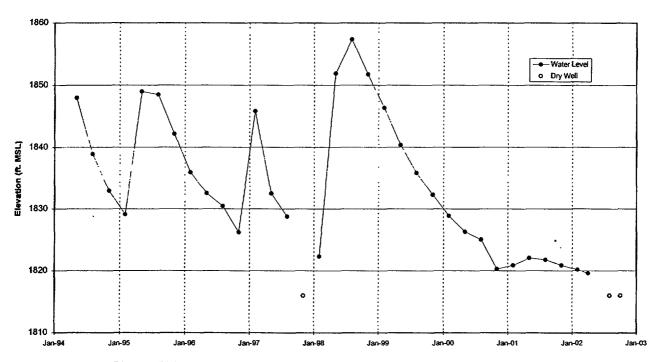
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-34C Figure A-132



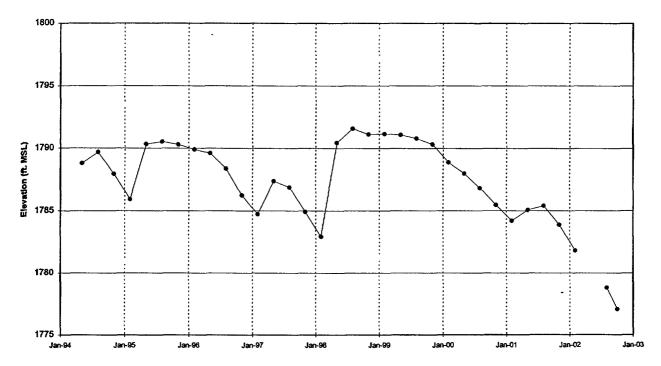
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-35A Figure A-133



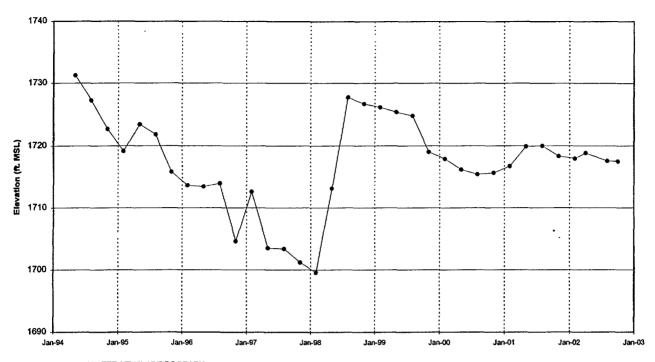
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-35B Figure A-134

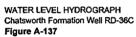


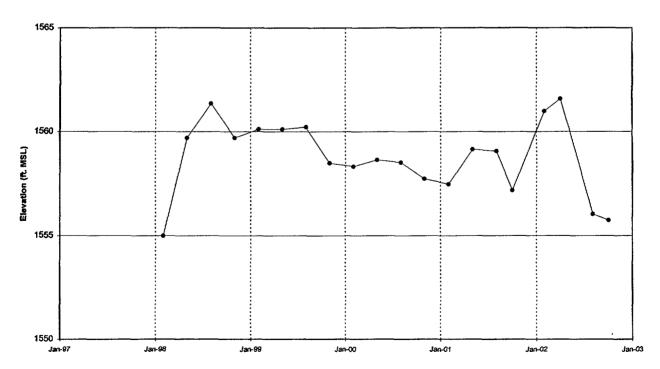
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-36A Figure A-135



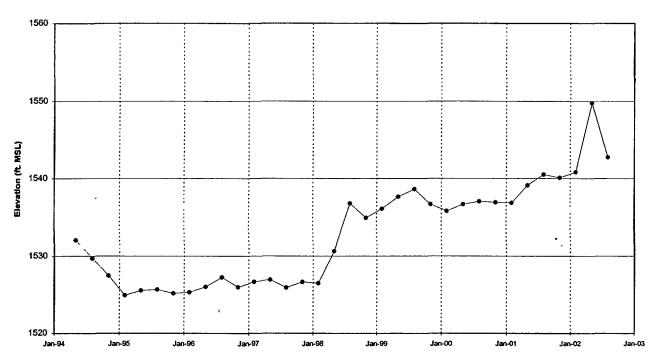
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-36B Figure A-138



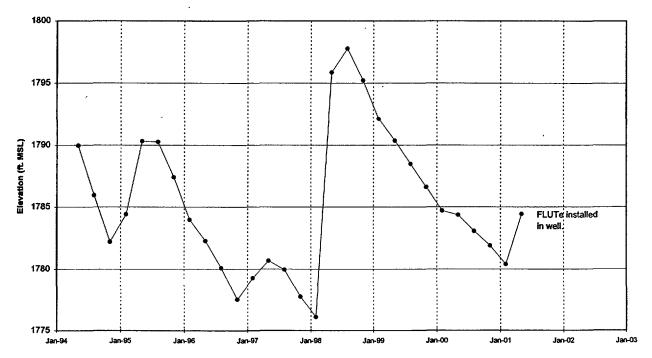




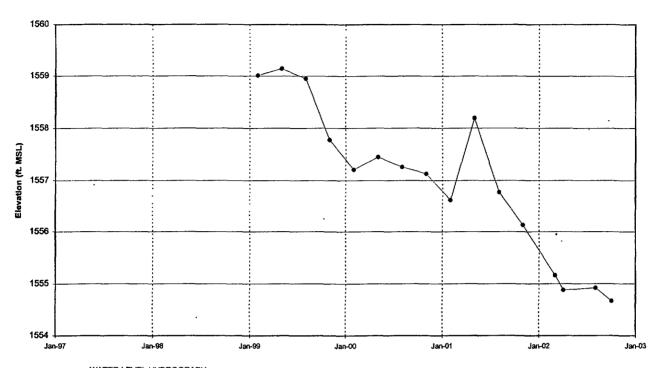
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-36D Figure A-138



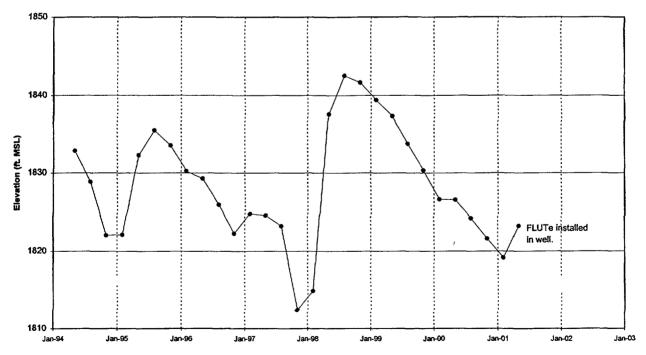
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-37 Figure A-139



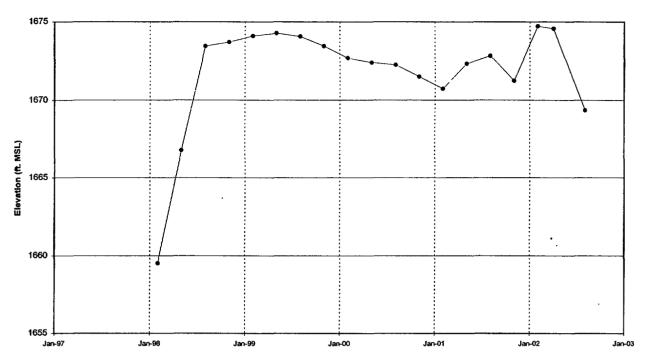
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-38A Figure A-140



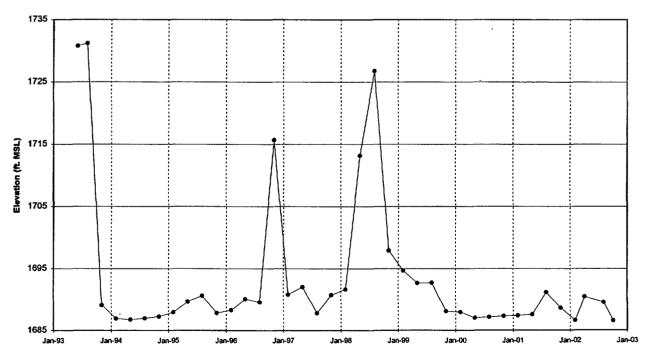
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-38B Figure A-141



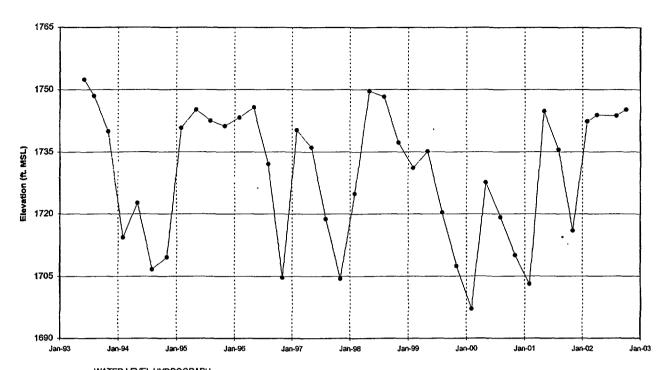
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-39A Figure A-142



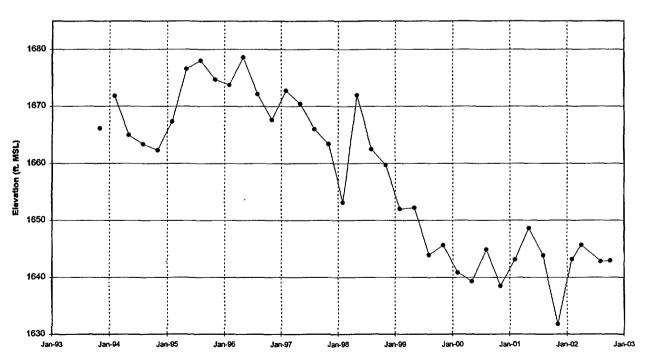
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-39B Figure A-143



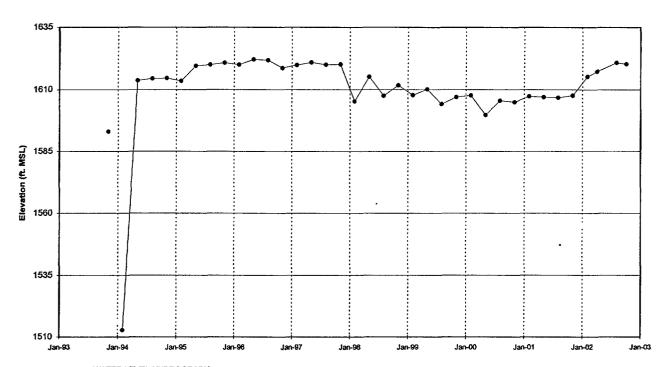
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-40 Figure A-144



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-41A Figure A-145



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-41B Figure A-148



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-41C Figure A-147

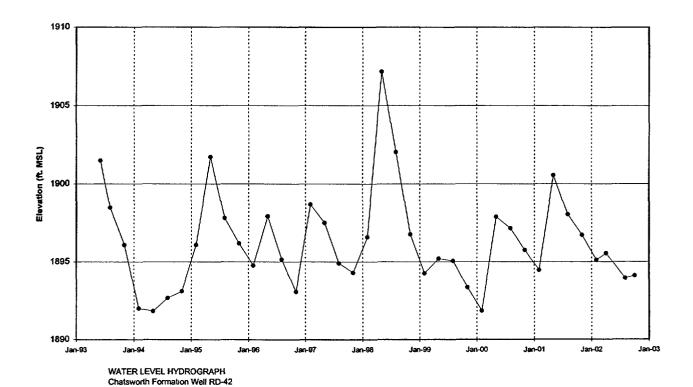
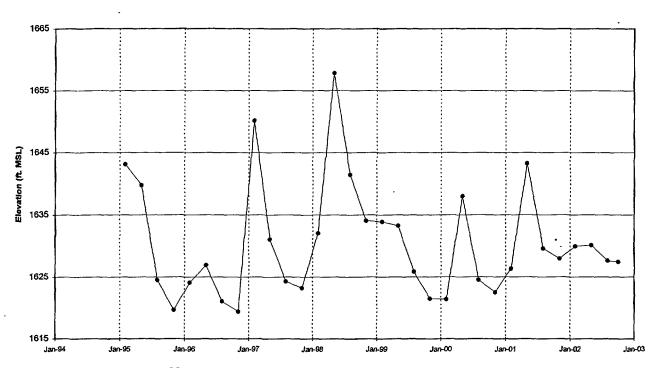
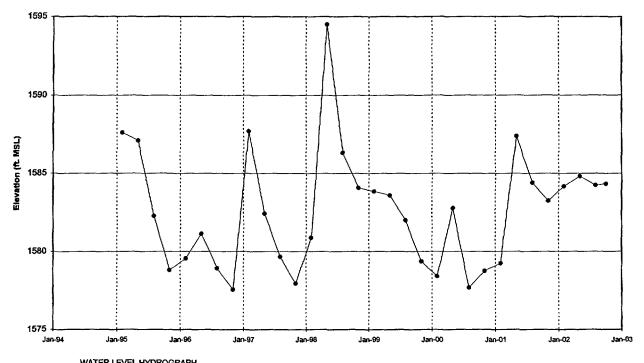


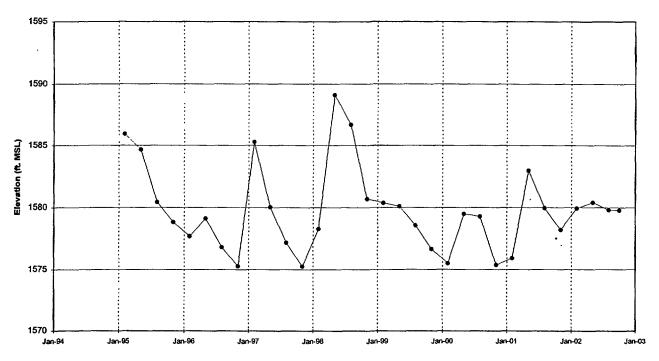
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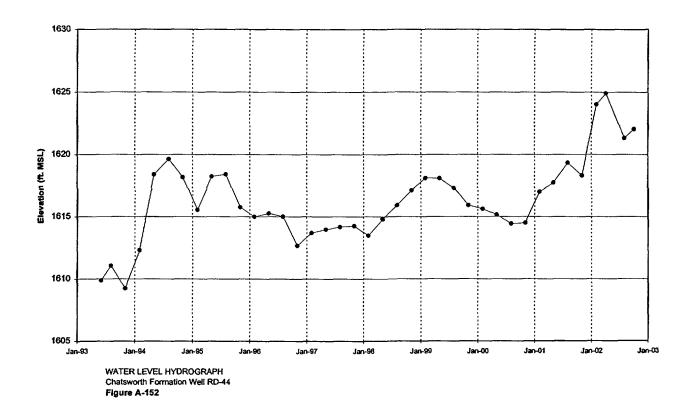
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-43A Figure A-149



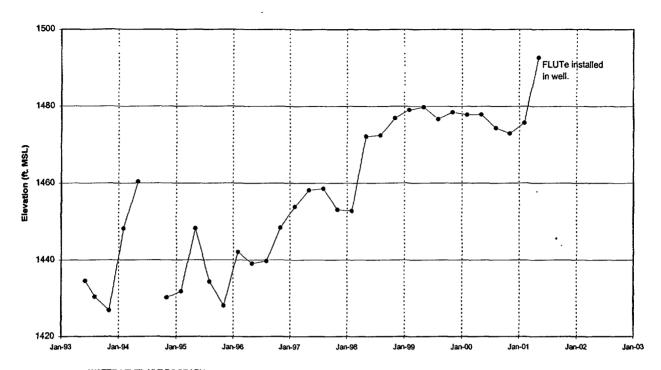
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-43B Figure A-150



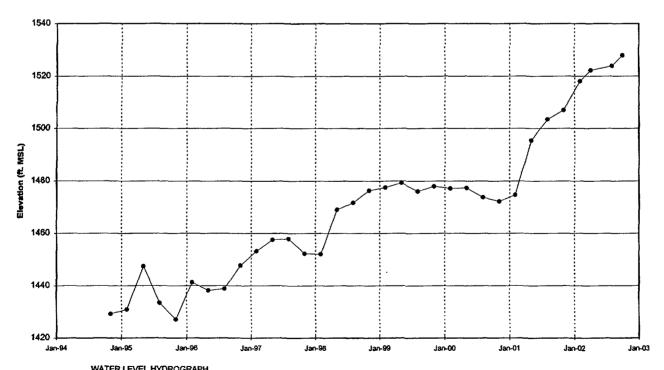
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-43C Figure A-151



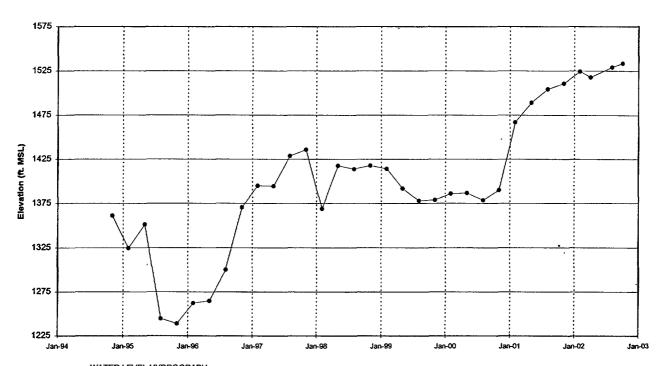
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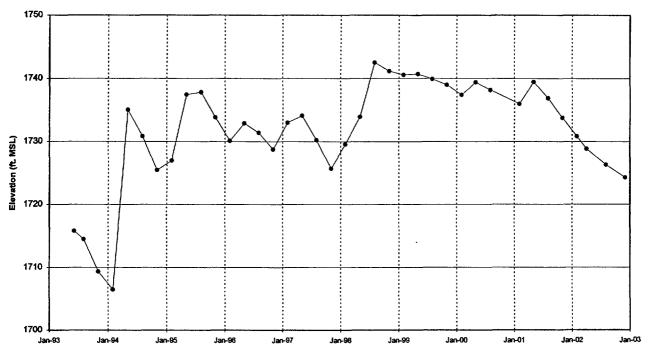
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-45A Figure A-153



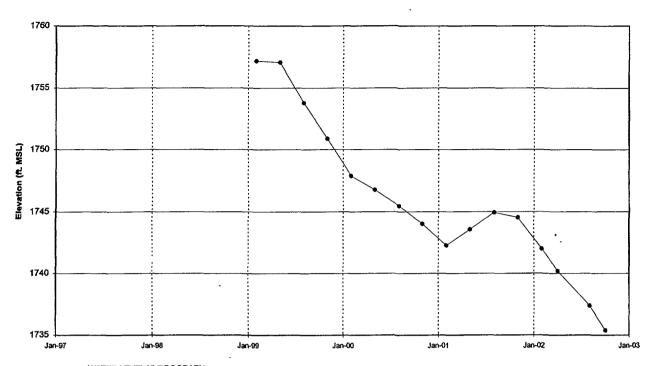
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-45B Figure A-154



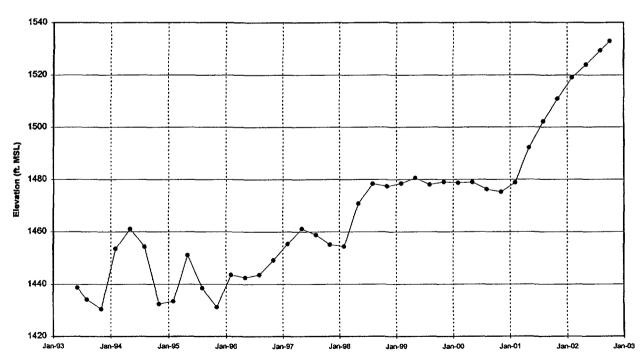
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-45C Figure A-155



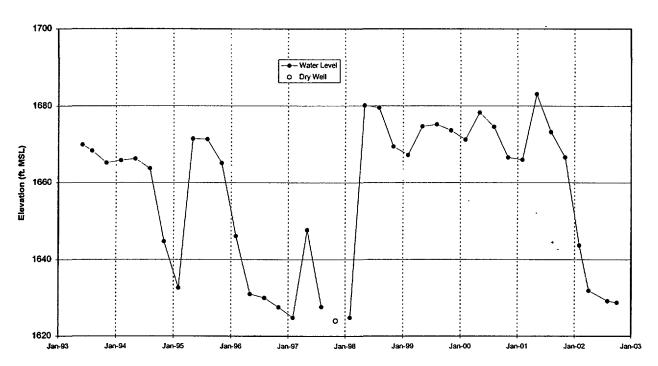
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-46A Figure A-156



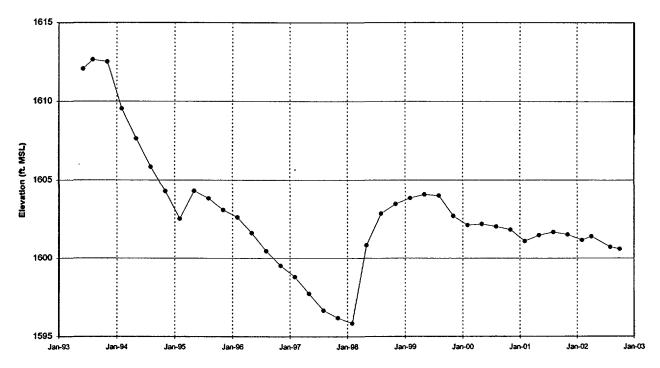
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-46B Figure A-157



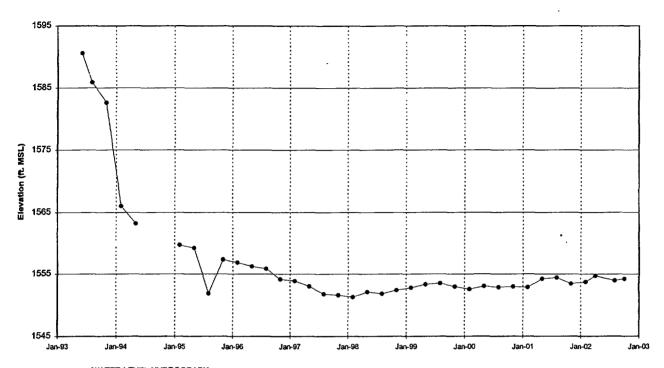
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-47 Figure A-158



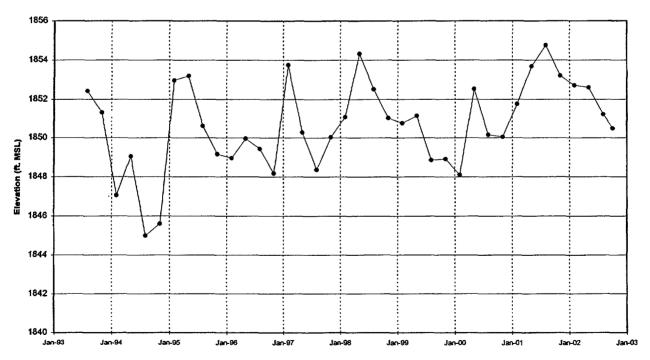
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-48A Figure A-159



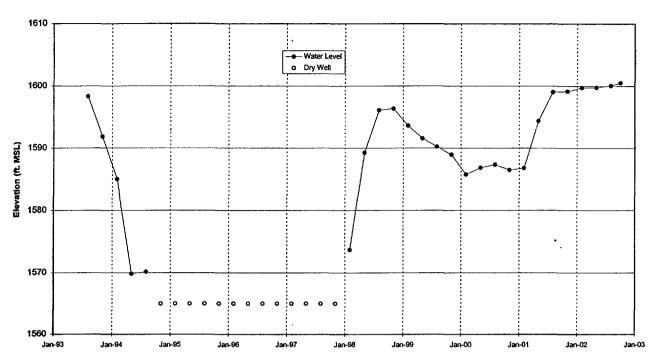
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-488 Figure A-160



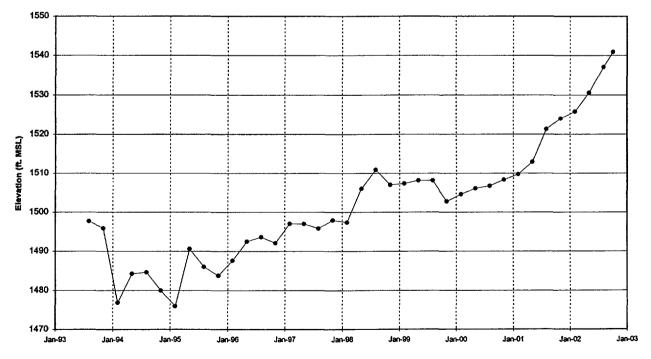
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-48C Figure A-161



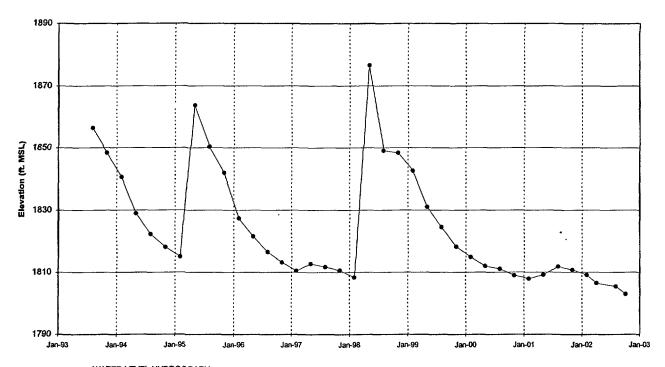
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-49A Figure A-162



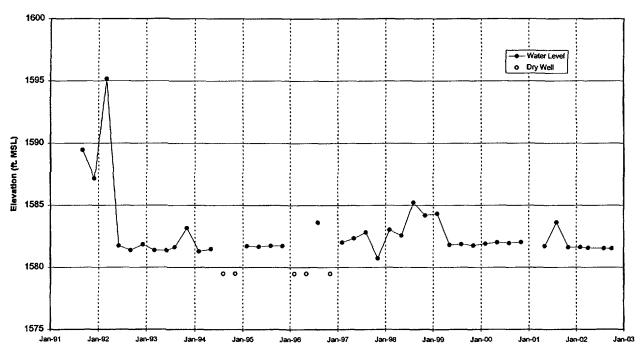
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-49B Figure A-163



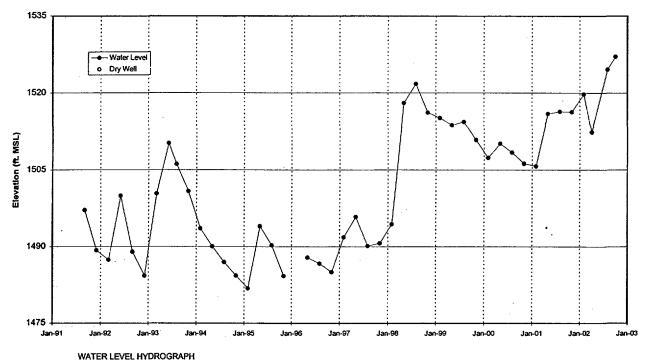
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-49C Figure A-164



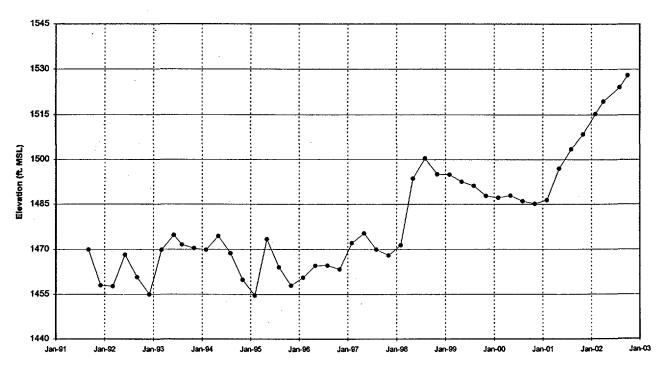
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-50 Figure A-165



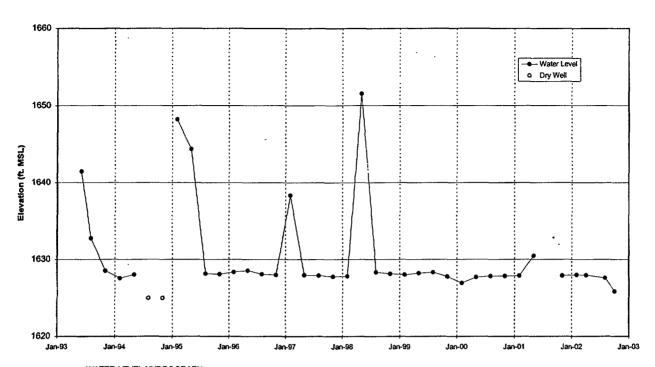
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-51A Figure A-168



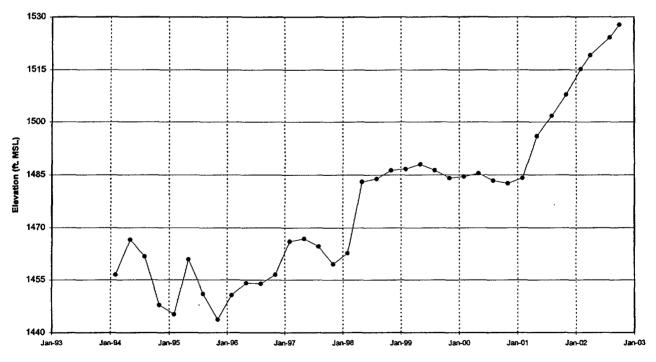
Chatsworth Formation Well RD-51B Figure A-167



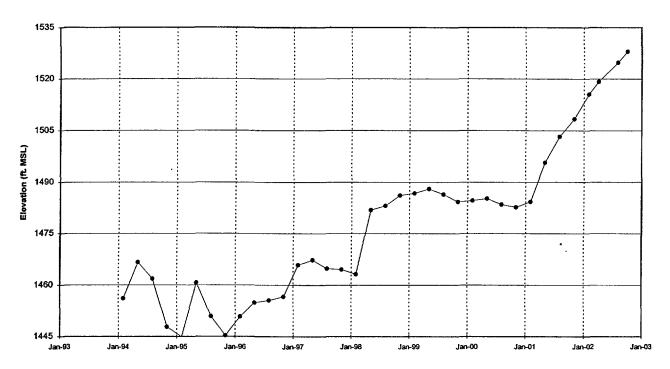
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-51C Figure A-168



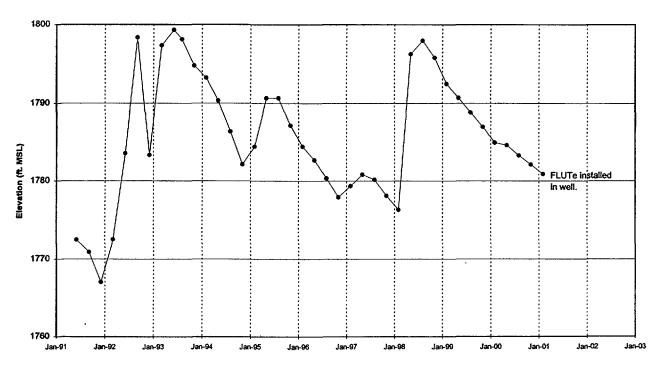
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-52A Figure A-169



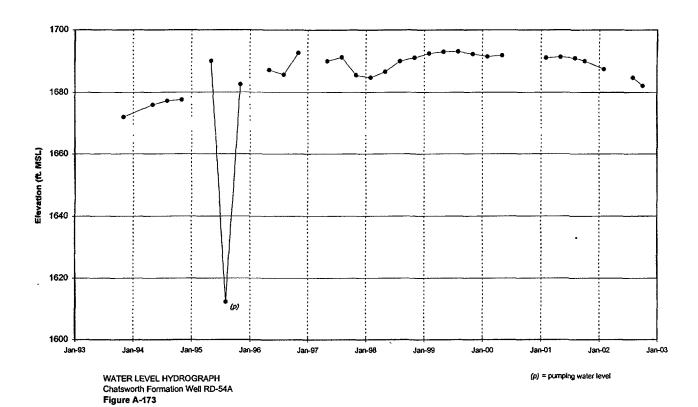
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-52B Figure A-170



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-52C Figure A-171



WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-53 Figure A-172



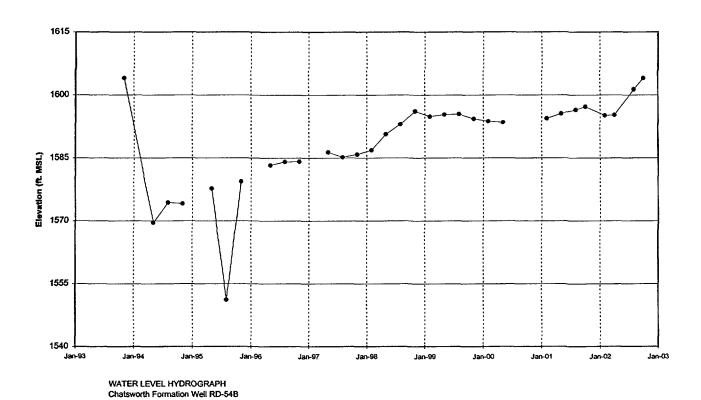
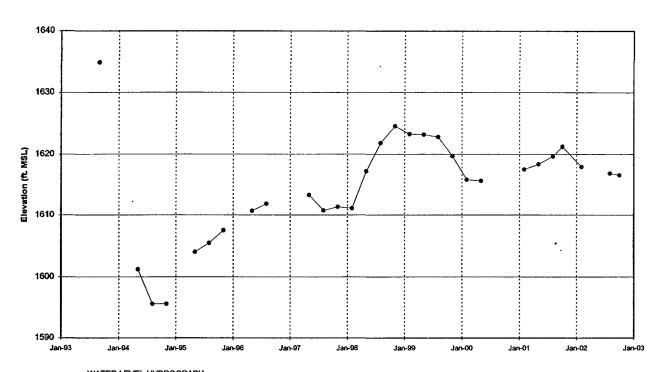
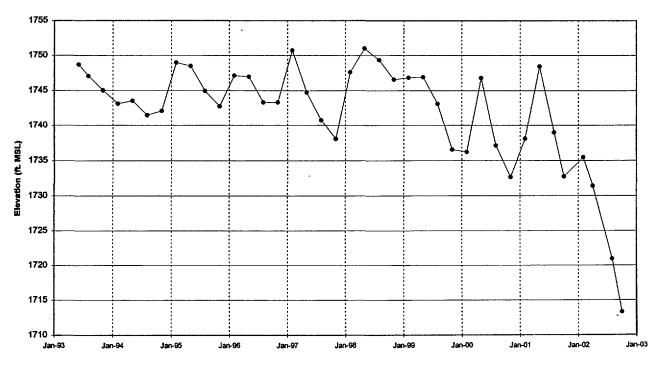


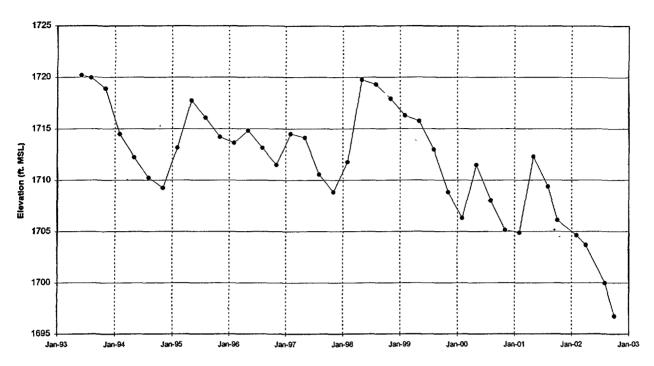
Figure A-174



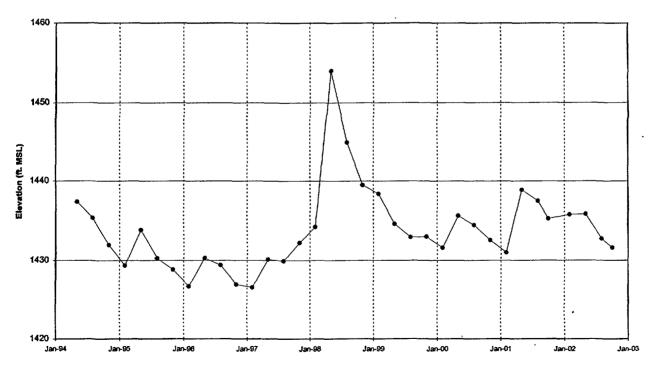
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-54C Figure A-175



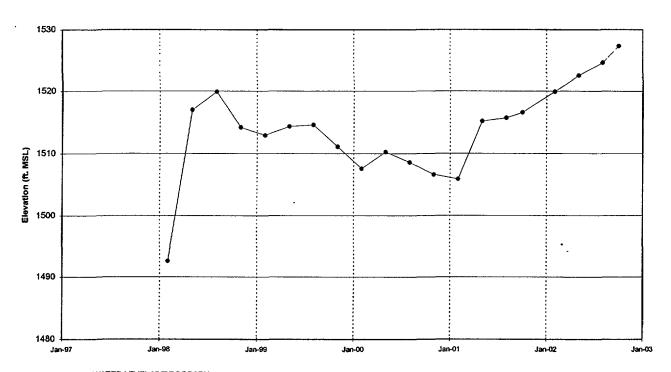
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-55A Figure A-176



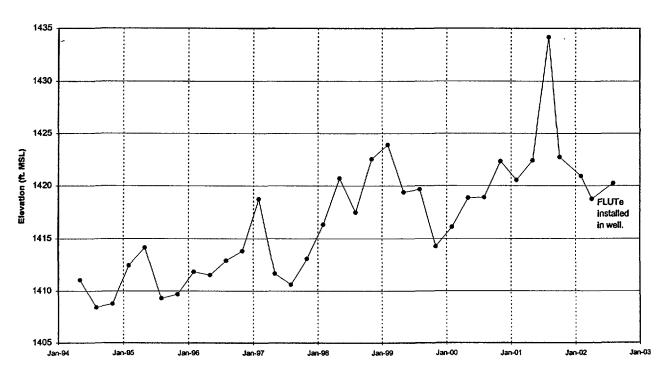
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-55B Figure A-177



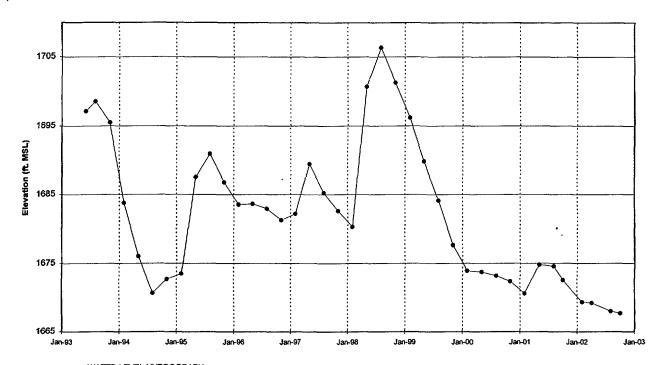
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-56A Figure A-178



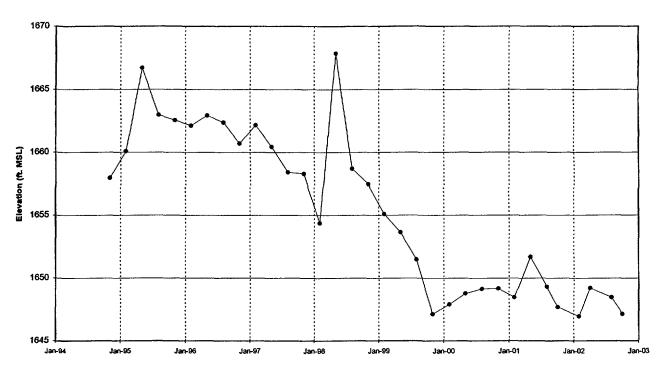
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-56B Figure A-179



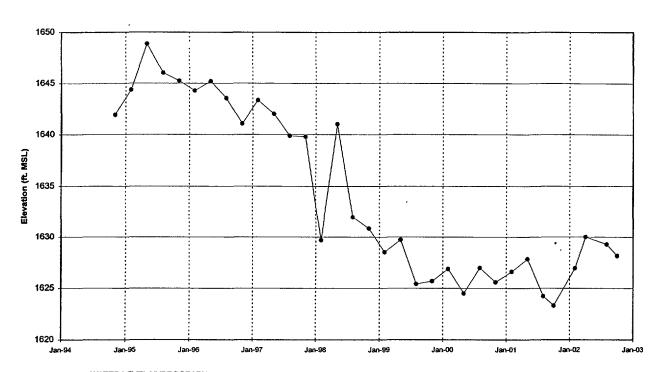
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-57 Figure A-180



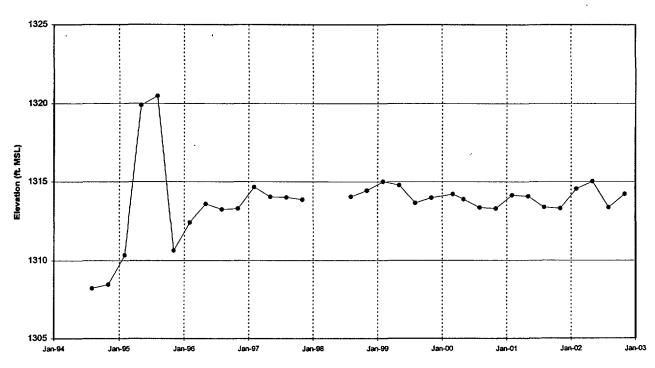
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-58A Figure A-181



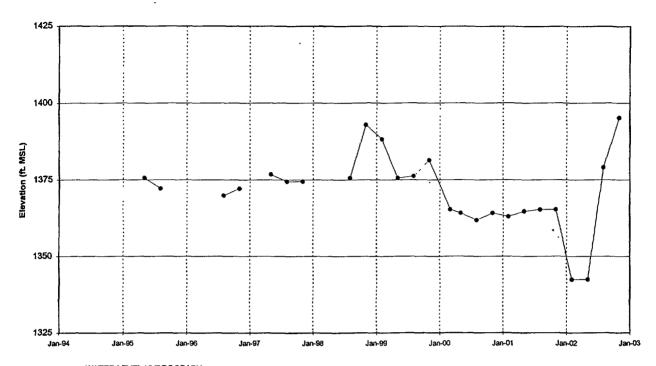
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-58B Figure A-182



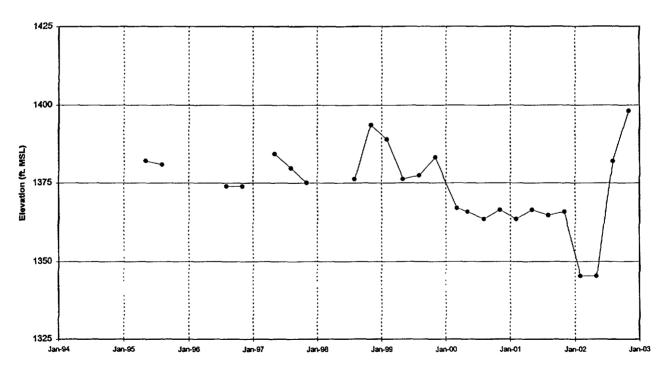
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-58C Figure A-183



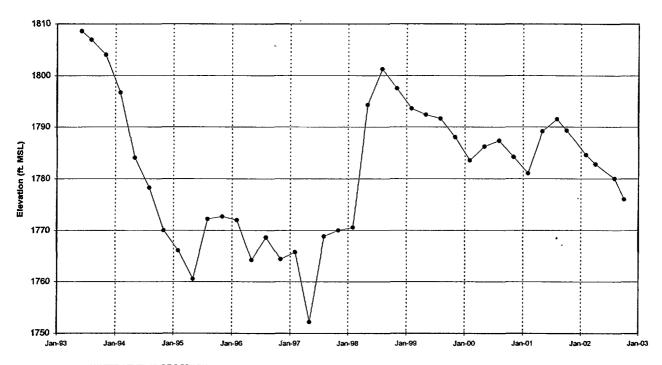
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-59A Figure A-184



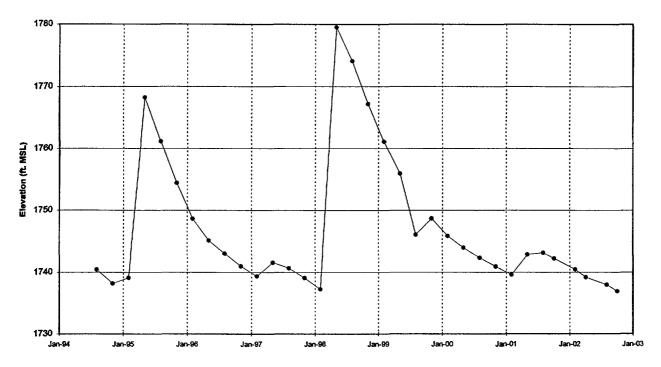
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-59B Figure A-185



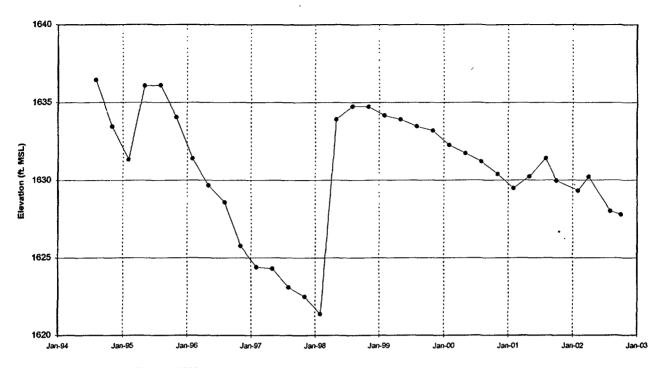
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-59C Figure A-186



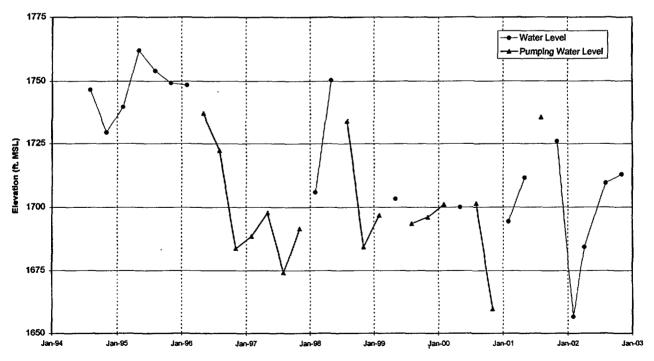
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-60 Figure A-187



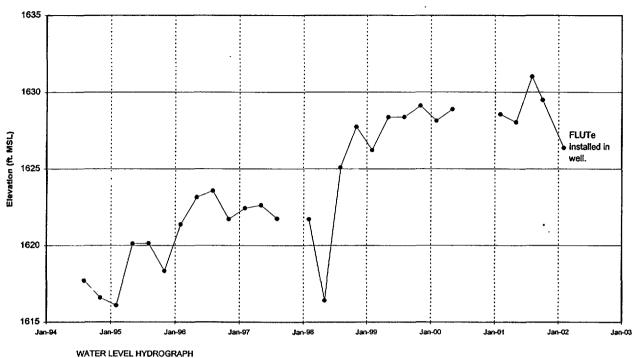
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-61 Figure A-188



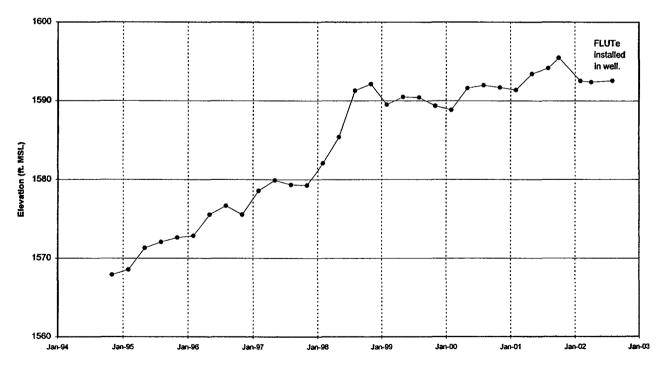
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-62 Figure A-189



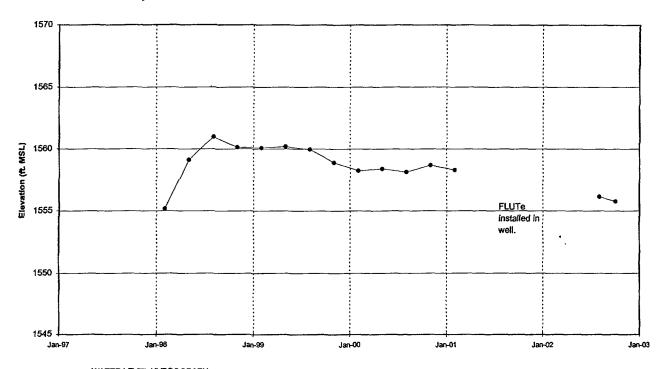
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-63 Figure A-190



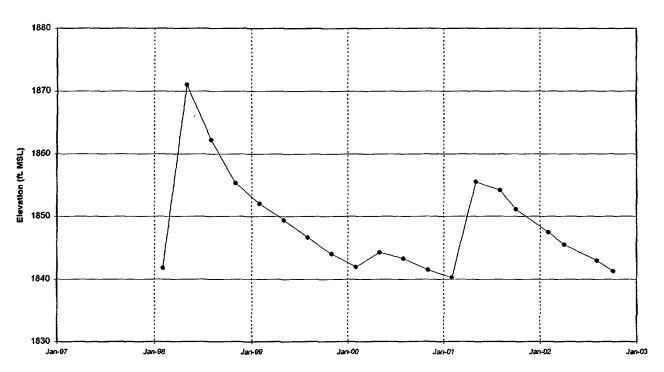
Chatsworth Formation Well RD-64
Figure A-191



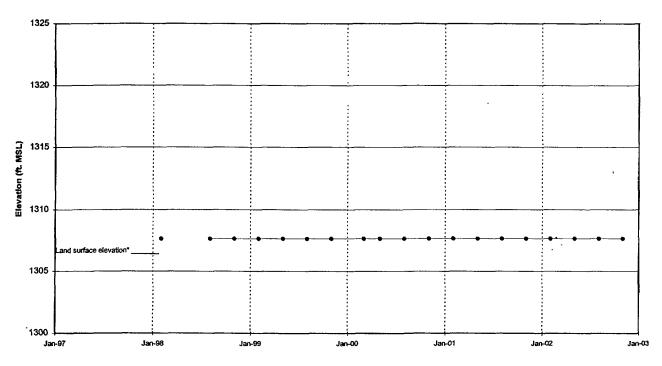
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-65 Figure A-192





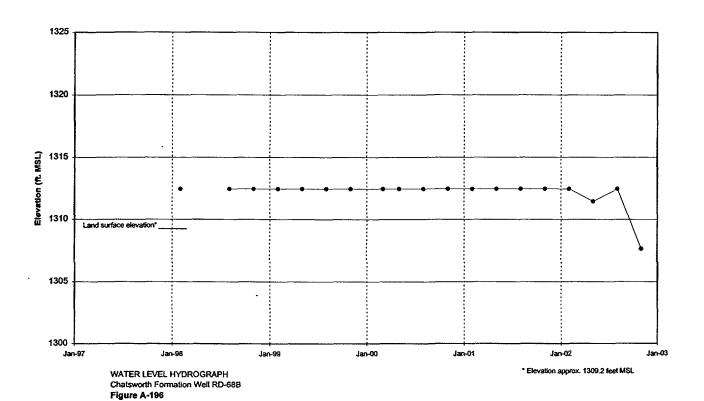


WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-67 Figure A-194

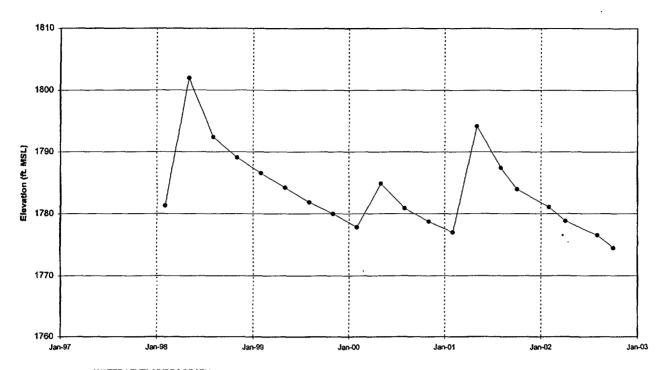


WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-68A Figure A-195

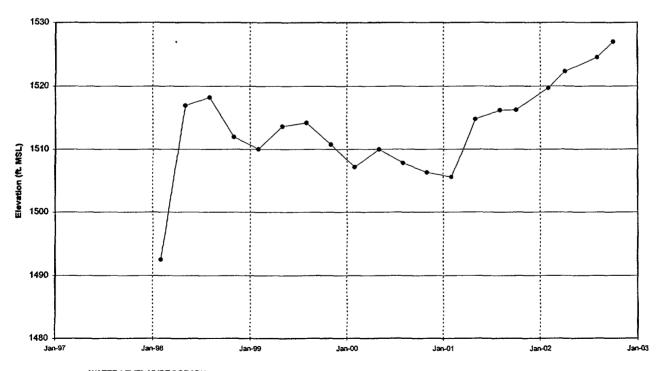
* Elevation approx. 1306.4 feet MSL



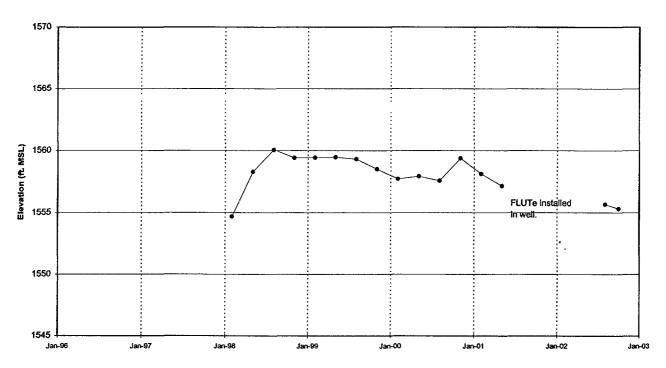
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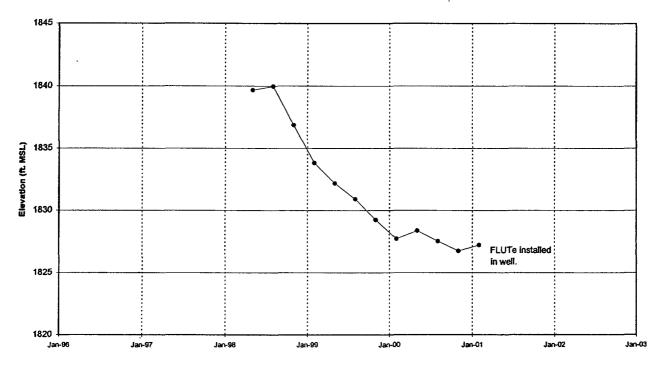
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-69 Figure A-197



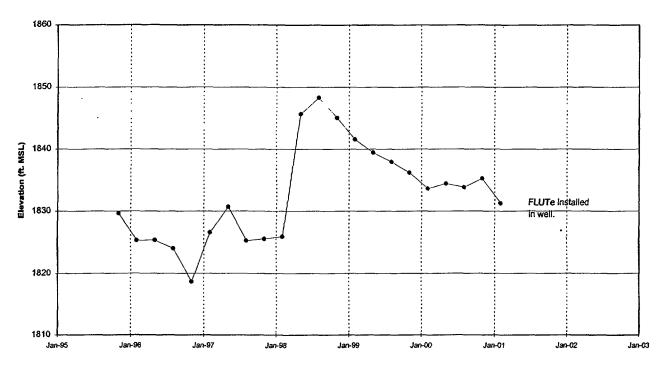
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-70 Figure A-198



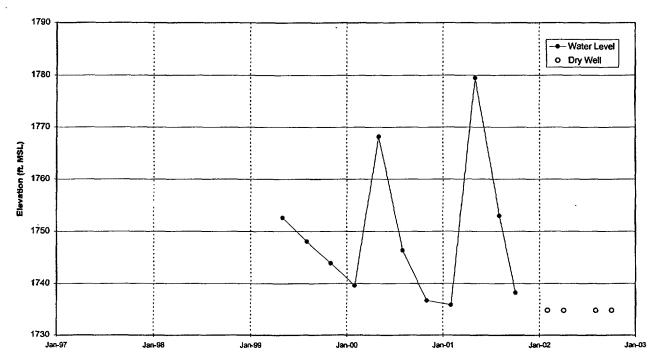
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-71 Figure A-199



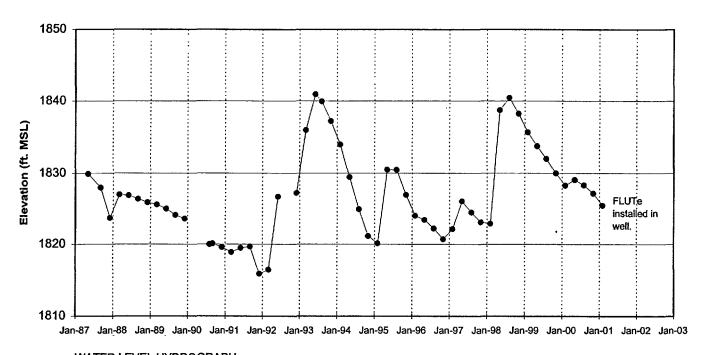
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-72 Figure A-200



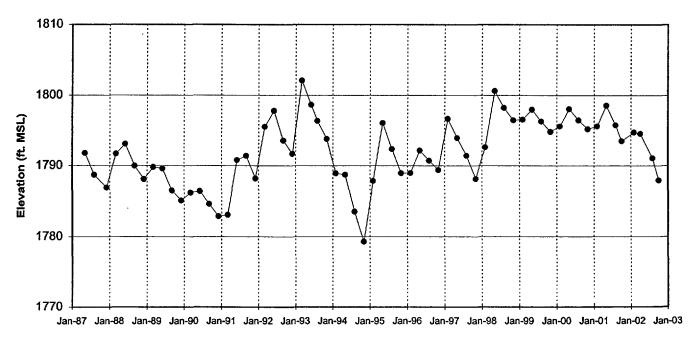
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-73 Figure A-201



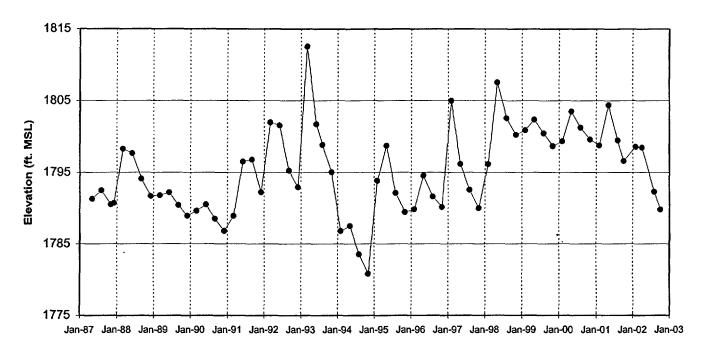
WATER LEVEL HYDROGRAPH Chatsworth Formation Well RD-74 Figure A-202



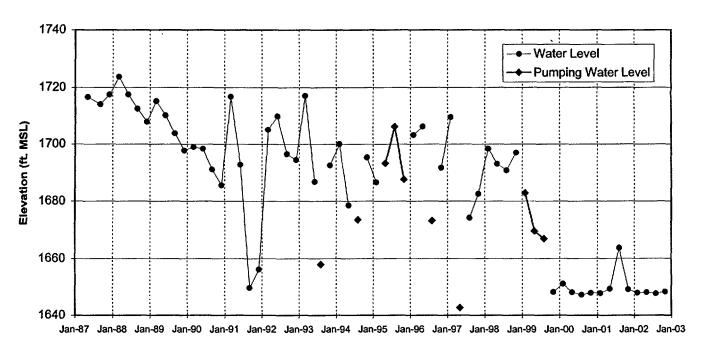
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-1 Figure A-203



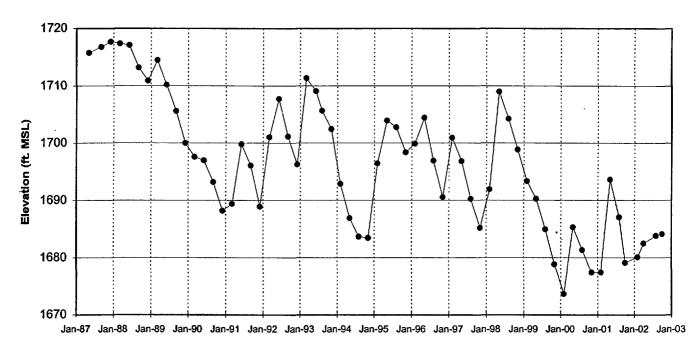
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-5 Figure A-204



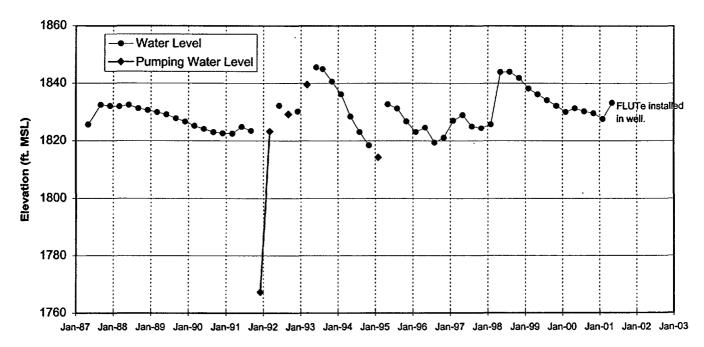
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-6 Figure A-205



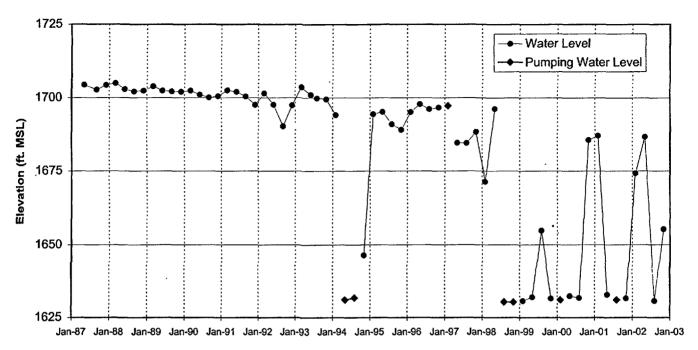
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-7 Figure A-206



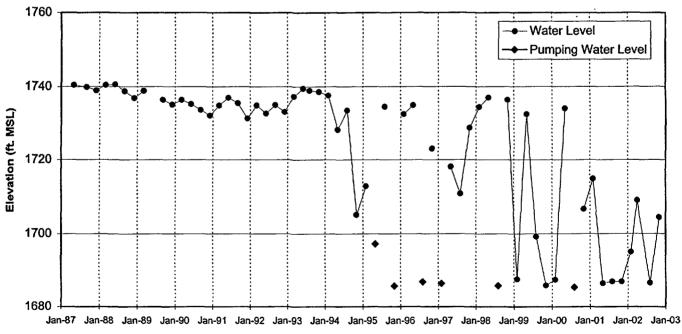
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-8 Figure A-207



WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-16 Figure A-208

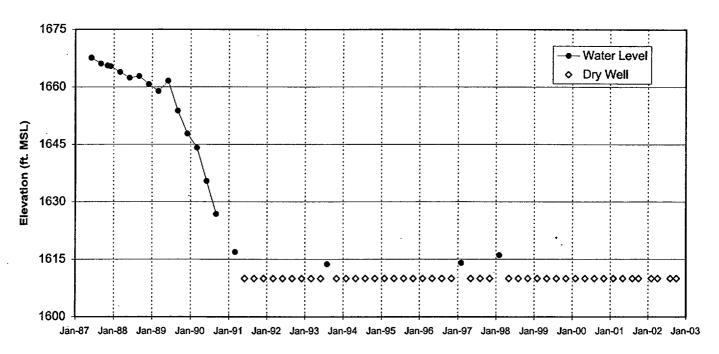


WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-17 Figure A-209

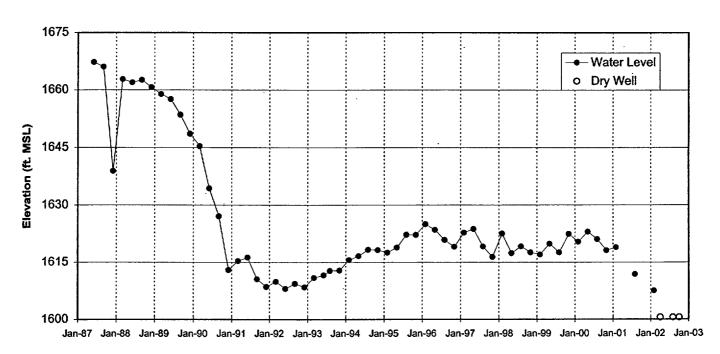


WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-18 Figure A-210

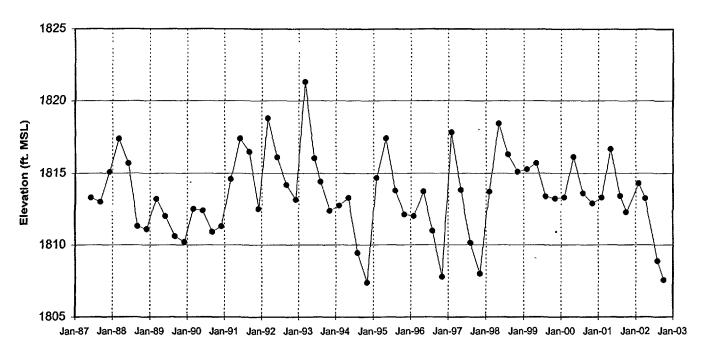
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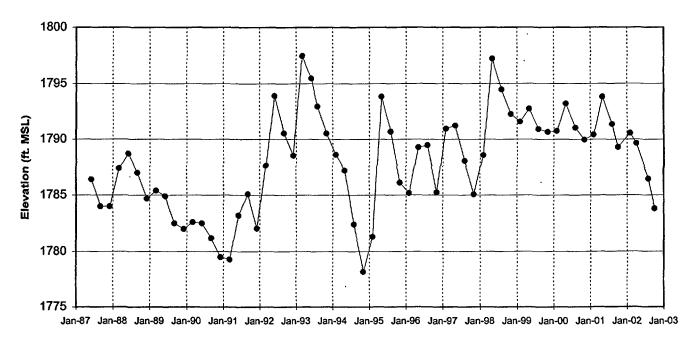
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-19 Figure A-211



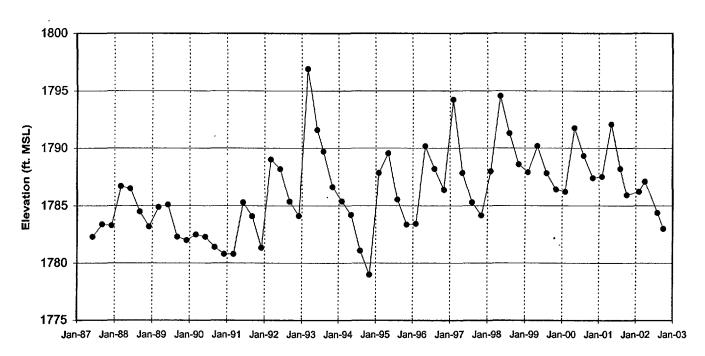
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-20 Figure A-212



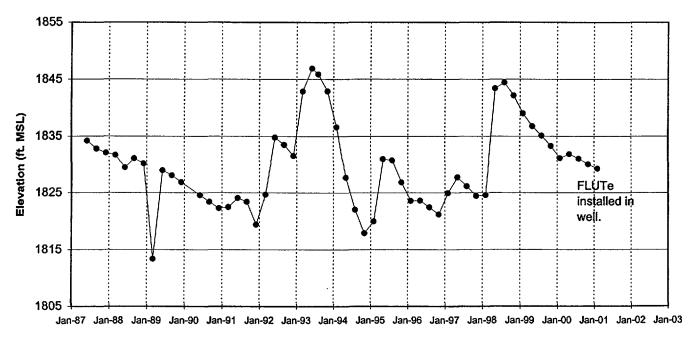
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-21 Figure A-213



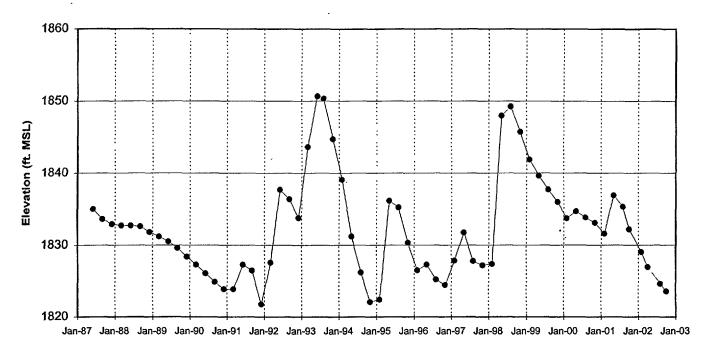
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-22 Figure A-214



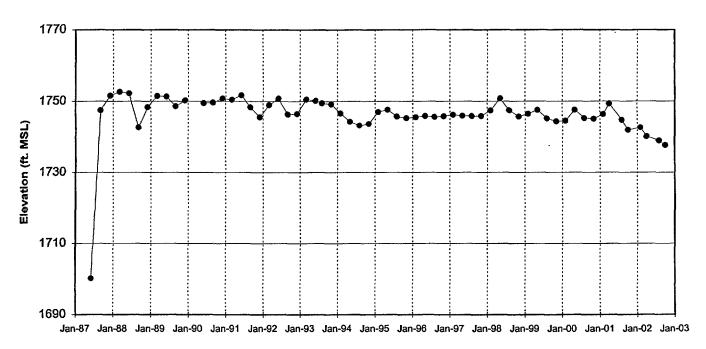
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-23 Figure A-215



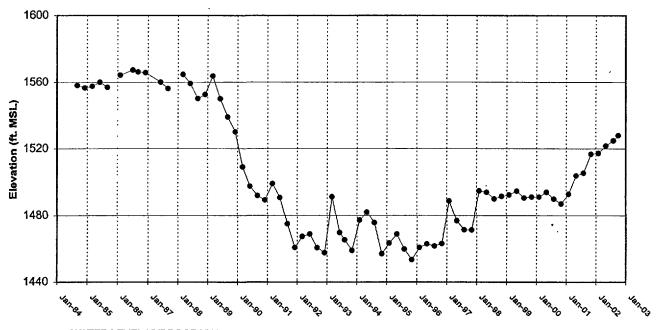
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-24 Figure A-216



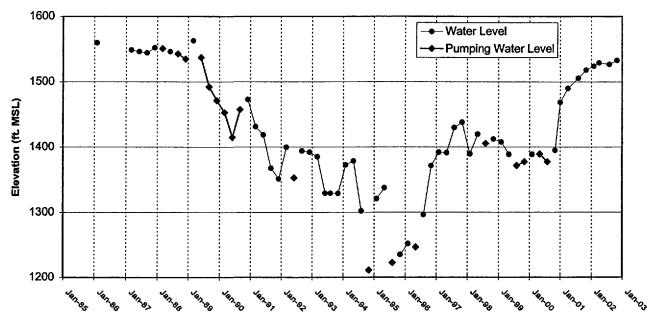
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-25 Figure A-217



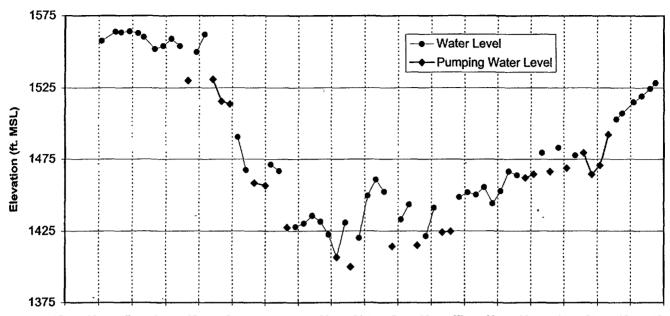
WATER LEVEL HYDROGRAPH Chatsworth Formation Well HAR-26 Figure A-218



WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-4A Figure A-219



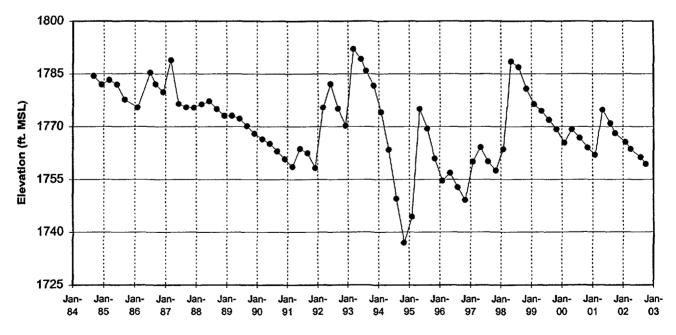
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-5 Figure A-220



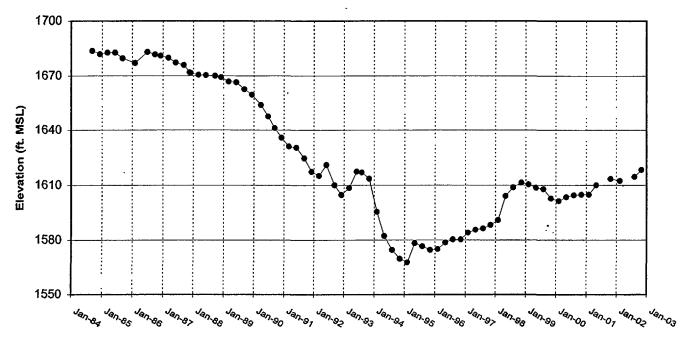
Jan-85 Jan-86 Jan-87 Jan-88 Jan-89 Jan-90 Jan-91 Jan-92 Jan-93 Jan-94 Jan-95 Jan-96 Jan-97 Jan-98 Jan-99 Jan-00 Jan-01 Jan-02 Jan-03

WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-6

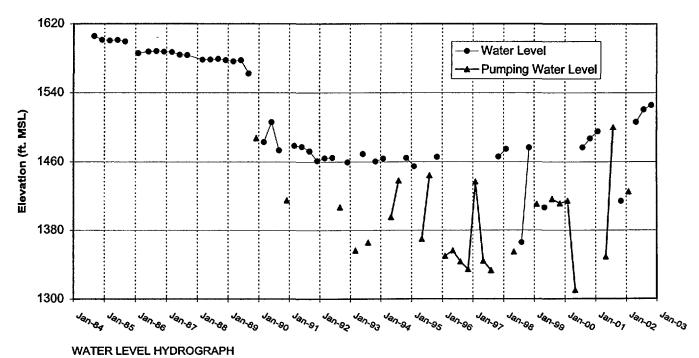
Figure A-221



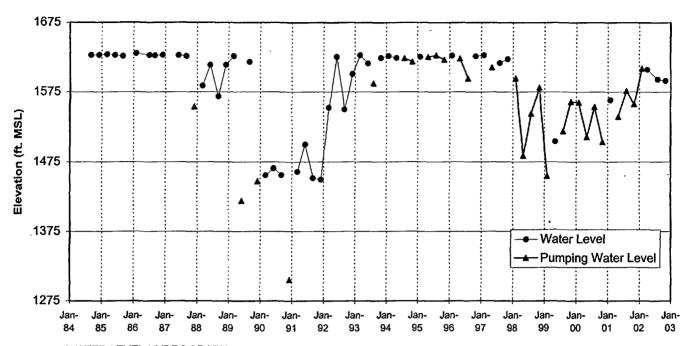
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-7 Figure A-222



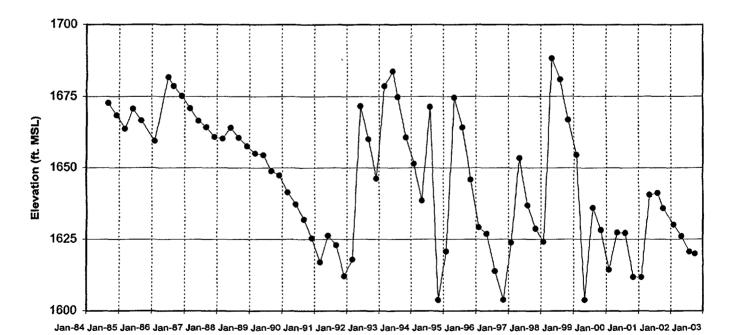
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-8 Figure A-223



Chatsworth Formation Well WS-9 Figure A-224

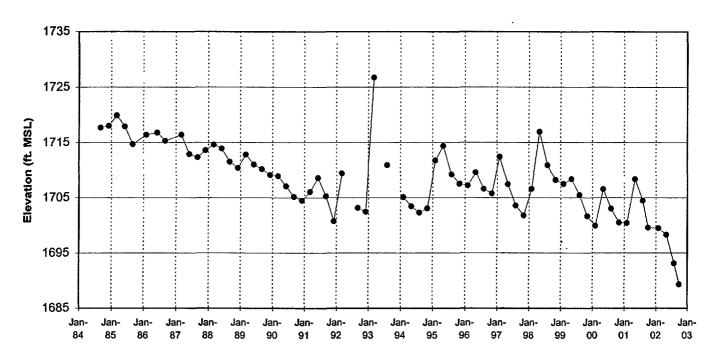


WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-9A Figure A-225

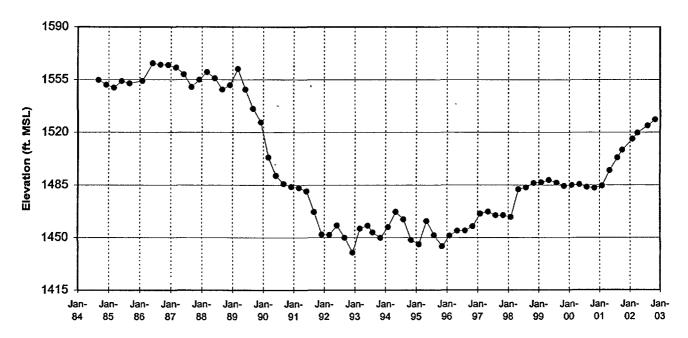


WATER LEVEL HYDROGRAPH
Chatsworth Formation Well WS-9B

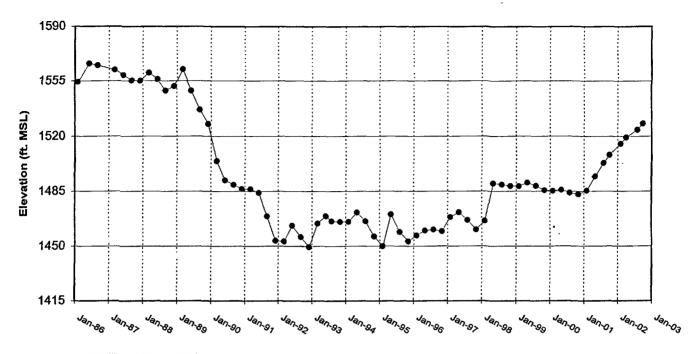
Figure A-226



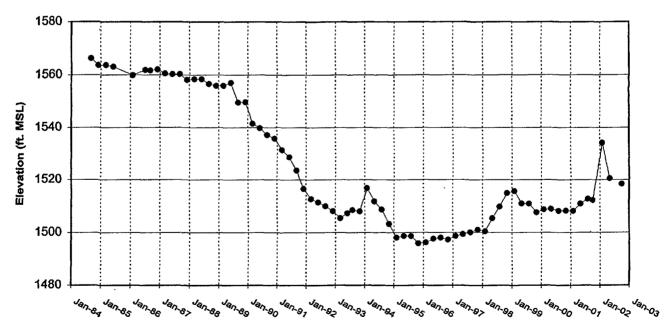
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-11 Figure A-227



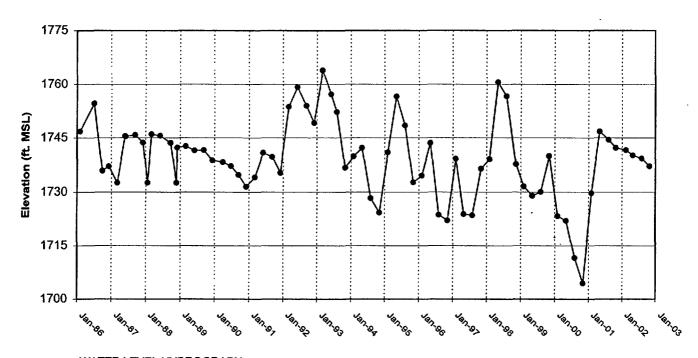
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-12 Figure A-228



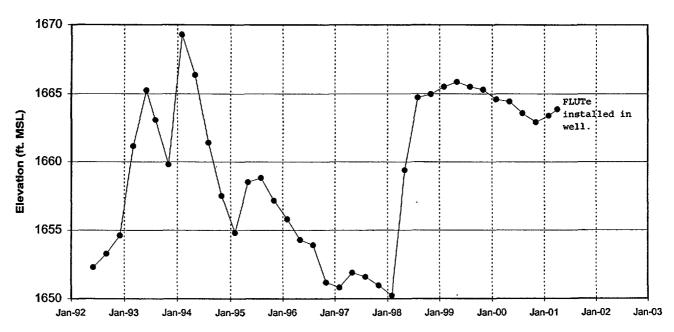
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-13 Figure A-229



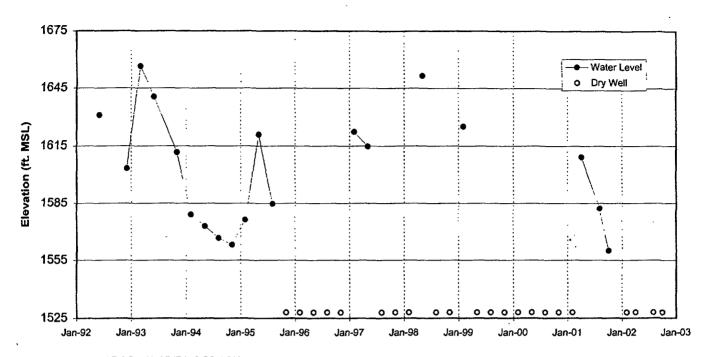
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-14 **Figure A-230**



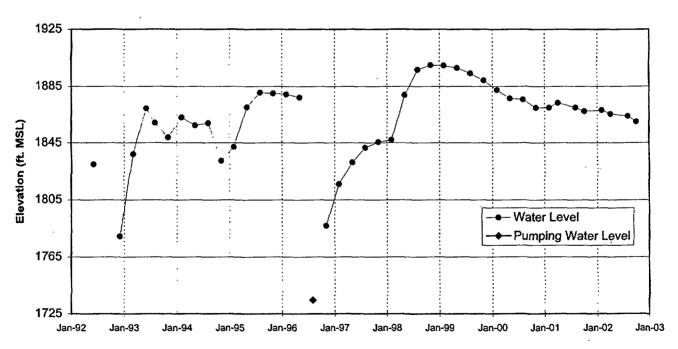
WATER LEVEL HYDROGRAPH Chatsworth Formation Well WS-SP Figure A-231



WATER LEVEL HYDROGRAPH Chatsworth Formation Well OS-24 Figure A-232



WATER LEVEL HYDROGRAPH Chatsworth Formation Well OS-25 Figure A-233



WATER LEVEL HYDROGRAPH Chatsworth Formation Well OS-26 **Figure A-234**

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Figure A-235
Chatsworth Formation Well RD-31 FLUTe Transducer Measurements

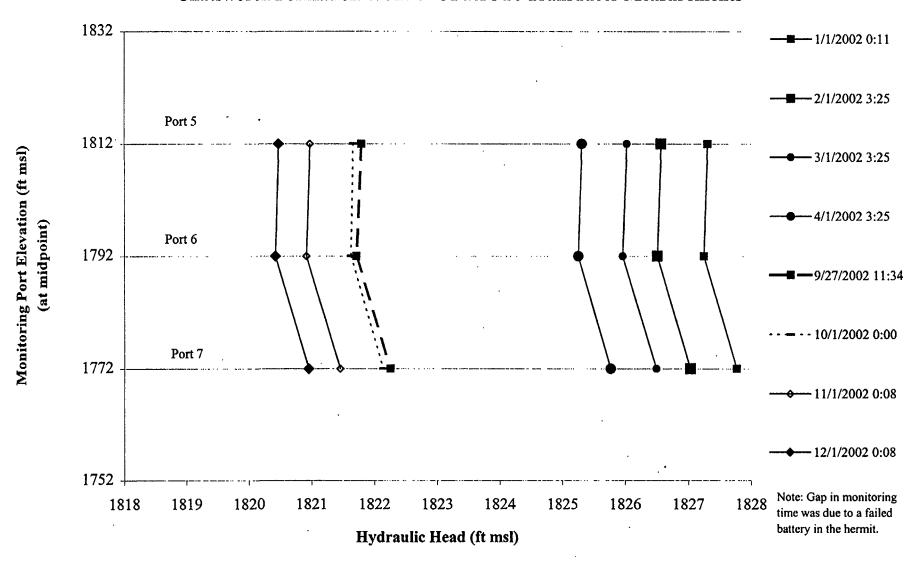


Figure A-236
Chatsworth Formation Well RD-38A FLUTe Transducer Measurements

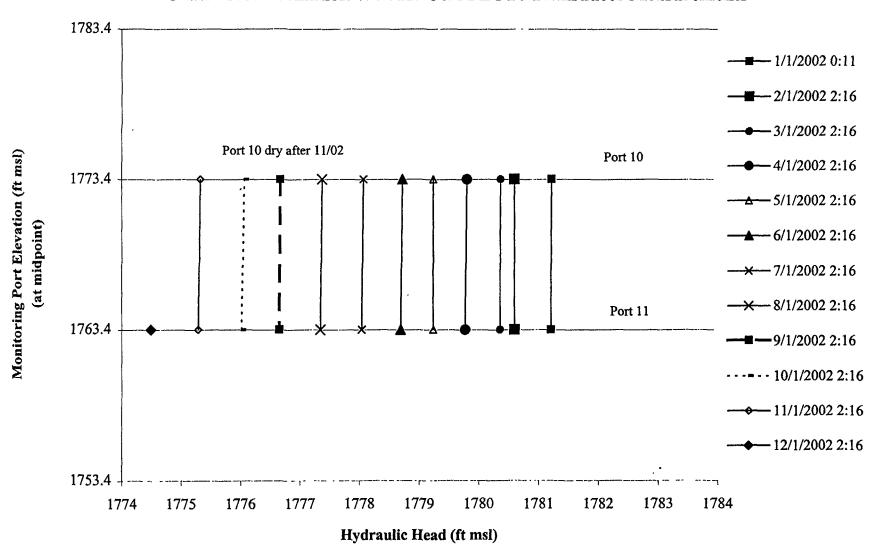


Figure A-237 Chatsworth Formation Well RD-39A FLUTe Transducer Measurements _____ 1/1/2002 0:11 1823.73 ---- 3/1/2002 1:09 Port 6 dry after 8/02 Port 6 Monitoring Port Elevation (ft msl) 1813.73 ▲ 6/1/2002 1:09 ** 7/1/2002 1:09 (at midpoint) *** 8/1/2002 1:09 **---**9/1/2002 1:09 Port 7 1803.73 **-**·· 10/1/2002 1:09 ◆ 11/1/2002 1:09 **◆** 12/1/2002 1:09 1793.73 1811 1812 1814 1815 1816 1819 1810 1813 1817 1818 1820 Hydraulic Head (ft msl)

Modified 2/20/2003

Figure A-238
Chatsworth Formation Well RD-45A FLUTe Transducer Measurements

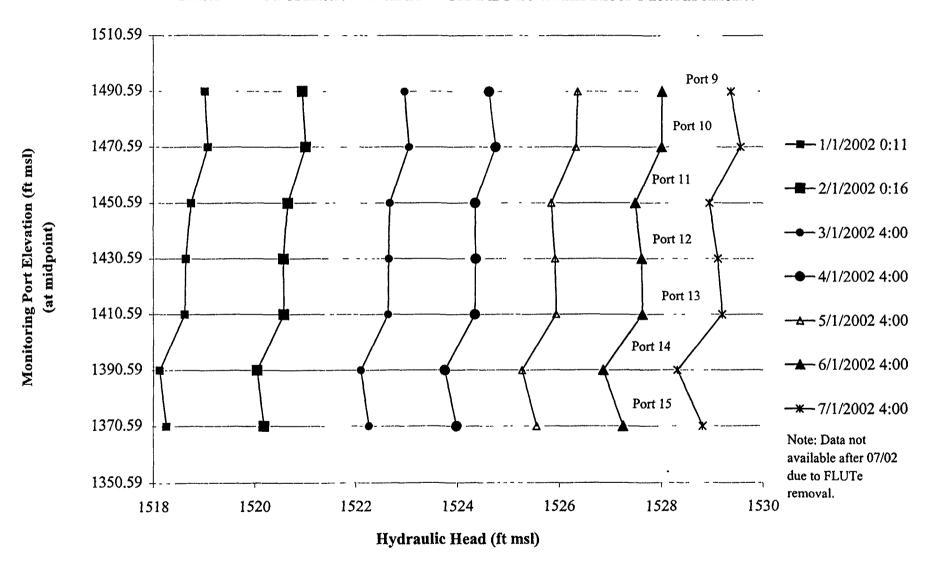


Figure A-239
Chatsworth Formation Well RD-53 FLUTe Transducer Measurements

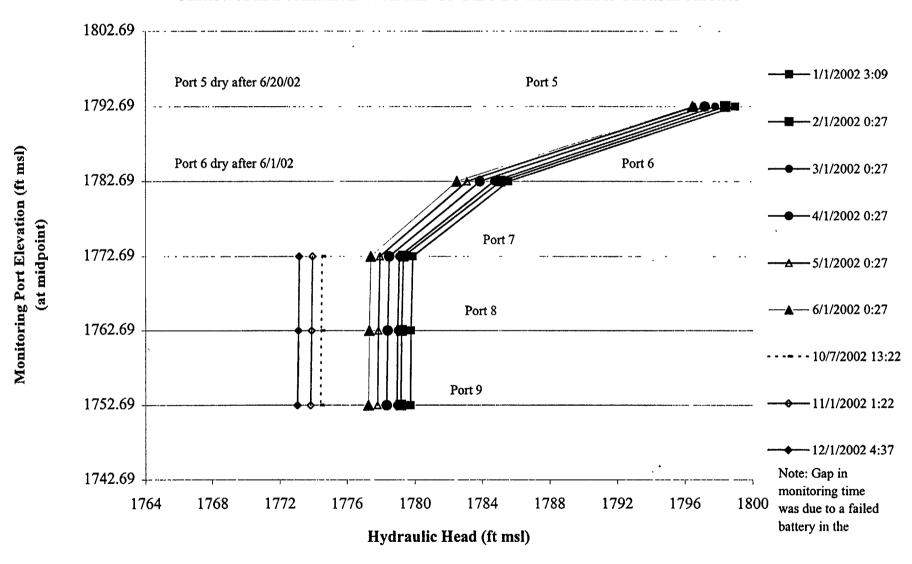


Figure A-240
Chatsworth Formation Well RD-66 FLUTe Transducer Measurements

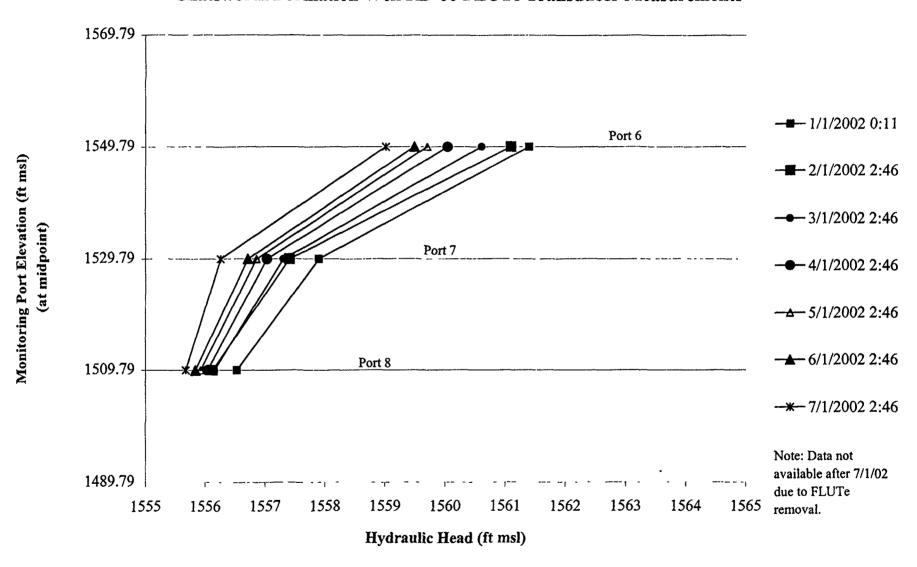


Figure A-241
Chatsworth Formation Well RD-71 FLUTe Transducer Measurements

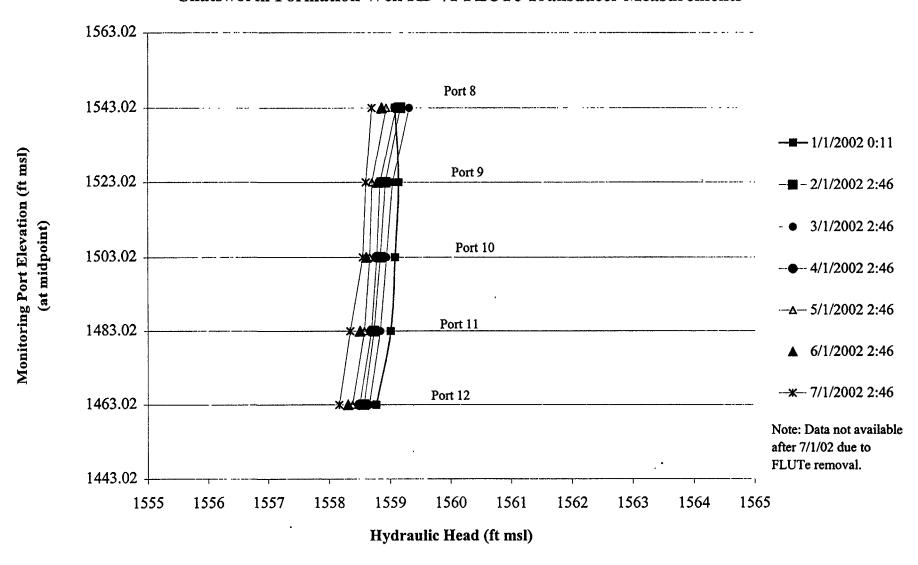


Figure A-242
Chatsworth Formation Well RD-72 FLUTe Transducer Measurements

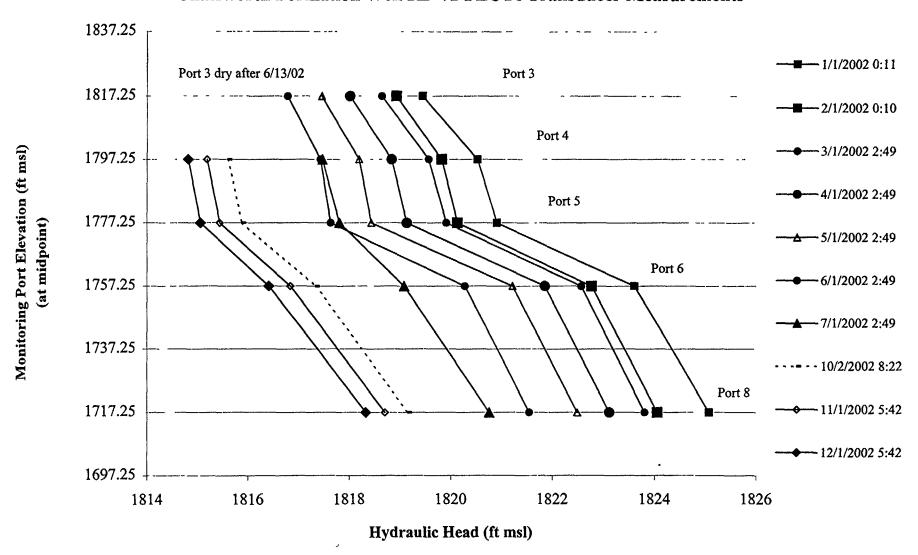


Figure A-243
Chatsworth Formation Well RD-73 FLUTe Transducer Measurements

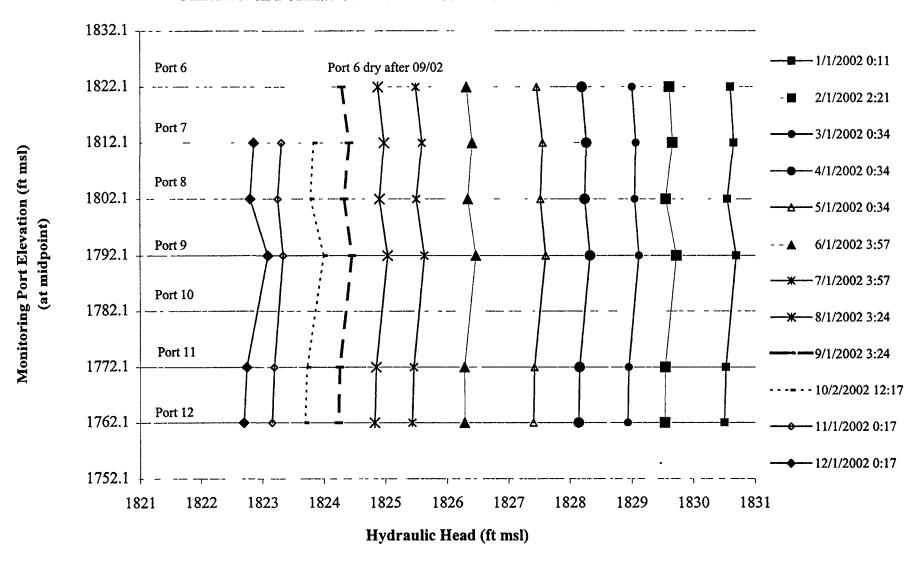


Figure A-244
Chatsworth Formation Well HAR-1 FLUTe Transducer Measurements

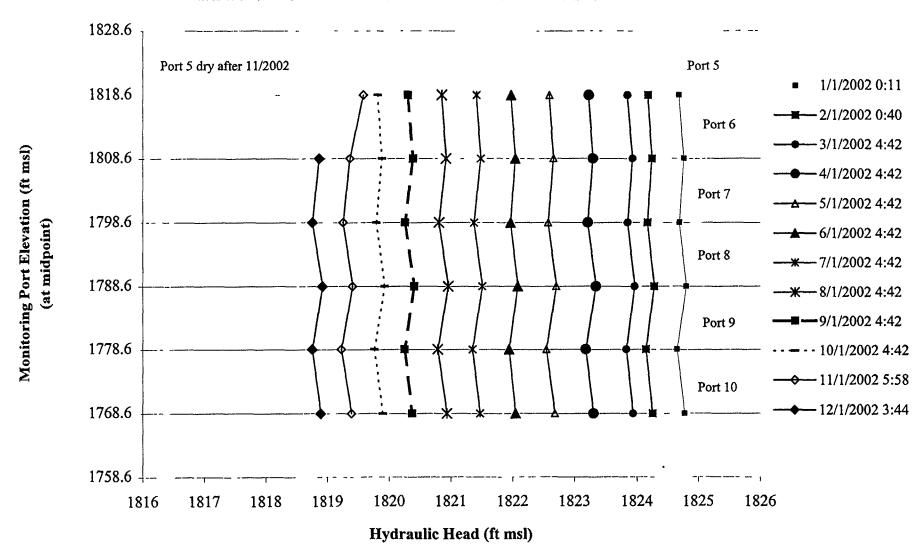


Figure A-245
Chatsworth Formation Well HAR-16 FLUTe Transducer Measurements

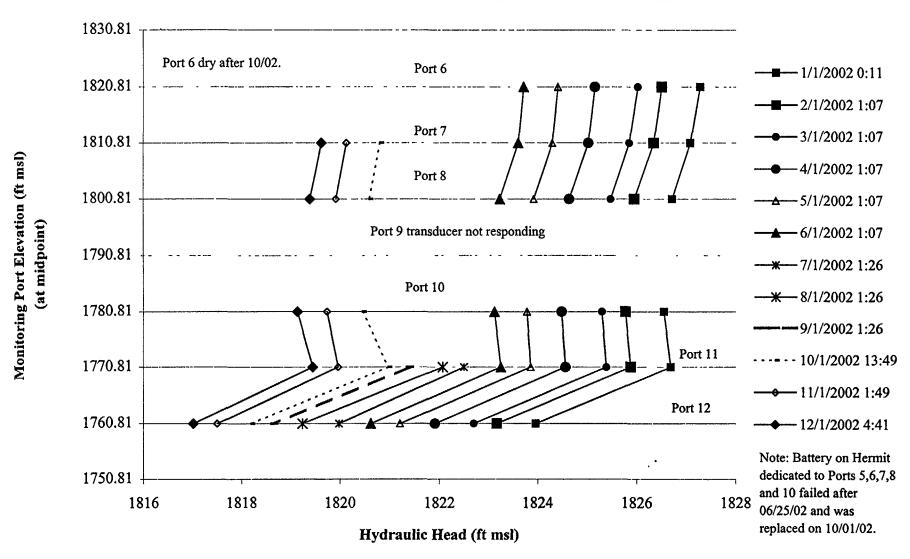


Figure A-246
Chatsworth Formation Well HAR-24 FLUTe Transducer Measurements

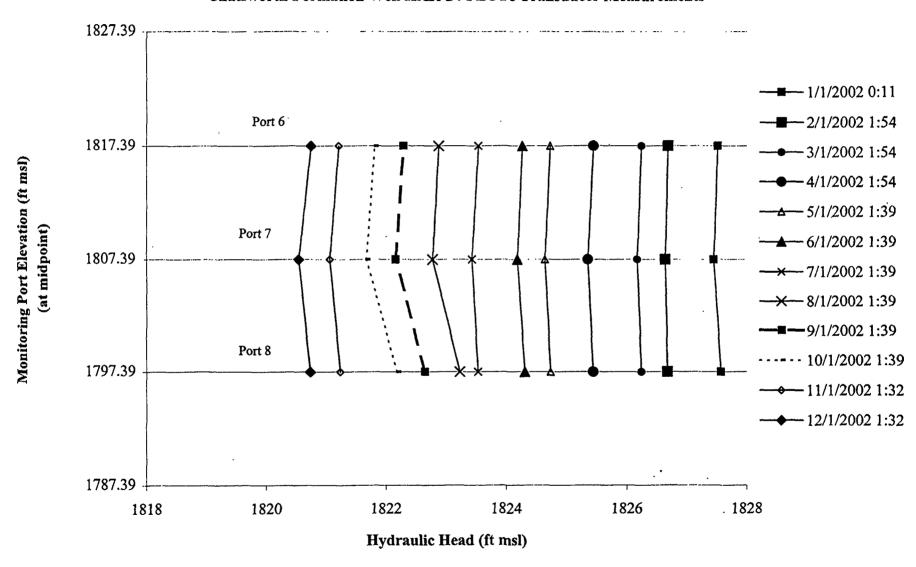


Figure A-247
Chatsworth Formation Well OS-24 FLUTe Transducer Measurements

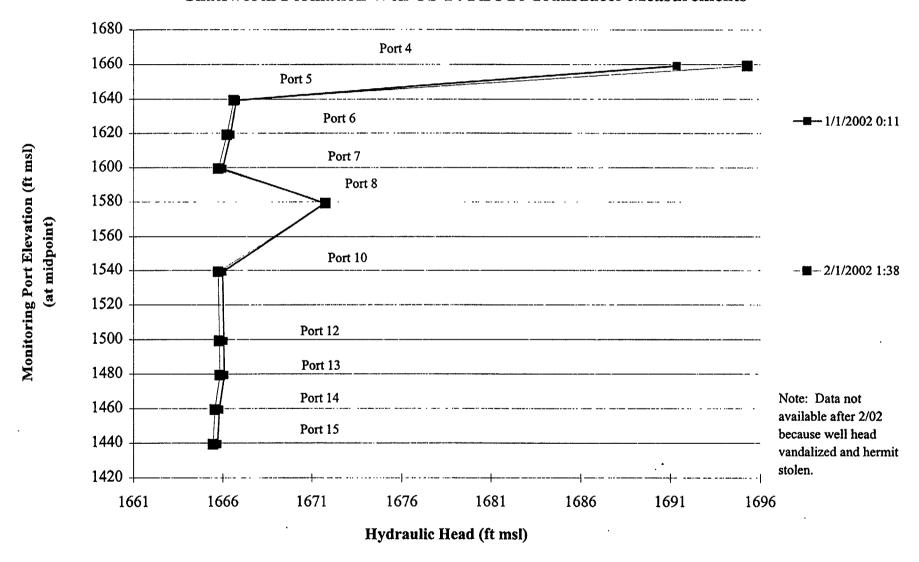


TABLE A-1
CONSTRUCTION DETAILS OF DISCRETE-INTERVAL MONITORING SYSTEMS
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	RI	D-07	R	D-10	RI	D-31	RE)-38A	RD-39A		
Date Liner Installed	04/	29/02	03/	18/02	01/	25/01	06/	06/01	06/	06/01/01	
Date Liner Removed		na	}	na		na	12/	/09/02	12/10/02		
Top of Casing Elevation (ft msl)	18	12.82	19	04.43	194	45.02	1878.92		196	1960.23	
Open-hole Depth to Water (ft btc)	87	7.03	•	195	116.32		95.48		13	8.15	
Hole Total Depth (ft btc)		9.55		101		178.5		18.5		59	
	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	
Port 1	50 - 60	1757.82	171 - 181	1728.43	48 - 58	1892.02	13 - 18	1863.42	94 - 99	1863.73	
Port 2	70 - 80	1737.82	191 - 201	1708.43	68 - 78	1872.02	23 - 28	1853.42	104 - 109	1853.73	
Port 3	90 - 100	1717.82	211 - 221	1688.43	88 - 98	1852.02	33 - 38	1843.42	114 - 119	1843.73	
Port 4	110 - 120	1697.82	231 - 241	1668.43	108 - 118	1832.02	43 - 48	1833.42	124 - 129	1833.73	
Port 5	130 - 140	1677.82	251 - 261	1648.43	128 - 138	1812.02	53 - 58	1823.42	134 - 139	1823.73	
Port 6	150 - 160	1657.82	271 - 281	1628.43	148 - 158	1792.02	63 - 68	1813.42	144 - 149	1813.73	
Port 7	170 - 180	1637.82	291 - 301	1608.43	168 - 178	1772.02	73 - 78	1803.42	154 - 159	1803.73	
Port 8	190 - 200	1617.82	311 - 321	1588.43			83 - 88	1793.42			
Port 9	210 - 220	1597.82	331 - 341	1568.43			93 - 98	1783.42			
Port 10	230 - 240	1577.82	351 - 361	1548.43			103 - 108	1773.42			
Port 11	250 - 260	1557.82	371 - 381	1528.43			113 - 118	1763.42	-		
Port 12	270 - 280	1537.82	391 - 401	1508.43			-				
Port 13	290 - 300	1517.82						***		****	
Port 14	-			**						44	
Port 15								***		***	

ft btc = Feet below top of casing.

ft msl = Feet above mean sea level.

TABLE A-1
CONSTRUCTION DETAILS OF DISCRETE-INTERVAL MONITORING SYSTEMS
Boeing Santa Susana Field Laboratory
Ventura County, California

			,		·		T		,		
Well	RI	D-45A	R	D-53	R	RD-66		RD-71		RD-72	
Date Liner Installed	05	25/01	01/	01/23/01		04/30/01		05/07/01		04/02/01	
Date Liner Removed	09/	09/09/02		na		07/17/02		07/19/02		na	
Top of Casing Elevation (ft msl)	18	41.59	19	09.19	17	30.79	17	40.02	19	07.25	
Open-hole Depth to Water (ft btc)	34	15.58	1	28.5	173.1		18	32.87	7	8.82	
Hole Total Depth (ft btc)	4	76.5		161	} :	226	:	282		184	
	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	
Port 1	186 - 196	1650.59	74 - 79	1832.69	76 - 86	1649.79	52 - 62	1683.02	45 - 55	1857.25	
Port 2	206 - 216	1630.59	84 - 89	1822.69	96 - 106	1629.79	72 - 82	1663.02	65 - 75	1837.25	
Port 3	226 - 236	1610.59	94 - 99	1812.69	116 - 126	1609.79	92 - 102	1643.02	85 - 95	1817.25	
Port 4	246 - 256	1590.59	104 - 109	1802.69	136 - 146	1589.79	112 - 122	1623.02	105 - 115	1797.25	
Port 5	266 - 276	1570.59	114 - 119	1792.69	156 - 166	1569.79	132 - 142	1603.02	125 - 135	1777.25	
Port 6	286 - 296	1550.59	124 - 129	1782.69	176 - 186	1549.79	152 - 162	1583.02	145 - 155	1757.25	
Port 7	306 - 316	1530.59	134 - 139	1772.69	196 - 206	1529.79	172 - 182	1563.02	165 - 175	1737.25	
Port 8	326 - 336	1510.59	144 - 149	1762.69	216 - 226	1509.79	192 - 202	1543.02	185 - 195	1717.25	
Port 9	346 - 356	1490.59	154 - 159	1752.69			212 - 222	1523.02			
Port 10	366 - 376	1470.59					232 - 242	1503.02			
Port 11	386 - 396	1450.59					252 - 262	1483.02			
Port 12	406 - 416	1430.59					272 - 282	1463.02			
Port 13	426 - 436	1410.59		**		***	, -				
Port 14	446 - 456	1390.59									
Port 15	466 - 476	1370.59									

ft btc = Feet below top of casing.

ft msl = Feet above mean sea level.

TABLE A-1
CONSTRUCTION DETAILS OF DISCRETE-INTERVAL MONITORING SYSTEMS
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	R	D-73	НА	\R-01	НА	R-16	НА	\R-24	0	S-24	
Date Liner Installed	i	02/01	1	08/01	06/19/01		04/06/01		07/09/01		
Date Liner Removed		na									
Top of Casing Elevation (ft msl)	19	01.60	18	74.13	18	72.31	19	06.89	19	47.30	
Open-hole Depth to Water (ft btc)	7	0.08	4	8.31	Unl	known	7	75.3		285	
Hole Total Depth (ft btc)		140		108		114	1	12.5	,	513	
	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	Depth of Open Interval (ft btc)	Midpoint Monitoring Elevation (ft msl)	
Port 1	27 - 32	1872.1	13 - 18	1858.63	0 - 4	1870.31	37 - 42	1867.39	223 - 233	1719.3	
Port 2	37 - 42	1862.1	23 - 28	1848.63	9 - 14	1860.81	47 - 52	1857.39	243 - 253	1699.3	
Port 3	47 - 52	1852.1	33 - 38	1838.63	19 - 24	1850.81	57 - 62	1847.39	263 - 273	1679.3	
Port 4	57 - 62	1842.1	43 - 48	1828.63	29 - 34	1840.81	67 - 72	1837.39	283 - 293	1659.3	
Port 5	67 - 72	1832.1	53 - 58	1818.63	39 - 44	1830.81	77 - 82	1827.39	303 - 313	1639.3	
Port 6	77 - 82	1822.1	63 - 68	1808.63	49 - 54	1820.81	87 - 92	1817.39	323 - 333	1619.3	
Port 7	87 - 92	1812.1	73 - 78	1798.63	59 - 64	1810.81	97 - 102	1807.39	343 - 353	1599.3	
Port 8	97 - 102	1802.1	83 - 88	1788.63	69 - 74	1800.81	107 - 112	1797.39	363 - 373	1579.3	
Port 9	107 - 112	1792.1	93 - 98	1778.63	79 - 84	1790.81			383 - 393	1559.3	
Port 10	117 - 122	1782.1	103 - 108	1768.63	89 - 94	1780.81			403 - 413	1539.3	
Port 11	127 - 132	1772.1			99 - 104	1770.81			423 - 433	1519.3	
Port 12	137 - 140	1762.1	-		109 - 114	1760.81	-		443 - 453	1499.3	
Port 13	-				-		- ·		463 - 473	1479.3	
Port 14									483 - 493	1459.3	
Port 15						**			503 - 513	1439.3	

ft btc = Feet below top of casing.

ft msl = Feet above mean sea level.

HAR-01, HAR-16, HAR-24, RD-38A, RD-39A, RD-53, RD-73 have alternating open and blank intervals at 5-foot frequencies (i.e., 5 feet op RD-31, RD-45A, RD-66, RD-71, RD-72, OS-24 have alternating open and blank intervals at 10-foot frequencies (i.e., 10 feet open then 10

APPENDIX B

GROUNDWATER MONITORING SCHEDULE



APPENDIX B GROUNDWATER MONITORING SCHEDULE

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B-2	Summary of Sampling and Analyses for Wells and Springs, Quarterly Groundwater Monitoring Program, 2002
B-3	2003 Annual Monitoring Schedule

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TABLE B-1
2002 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

				ANALYTICA	L METHODS		
Well ID	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling
			Quarter	Quarter	Quarter	Quarter	Plan
SHALLOW		S					
SH-1	111	R					
SH-2	111	R					
SH-3	111	R	8260		8260		Evaluation monitoring
SH-4	111	R		App IX		8260	Point of compliance
SH-5	111	R					
SH-6	111	R					
SH-7	111	R					
SH-8	111	R					
SH-9	111	R	l				
SH-10	111	R					
SH-11	111	R	8260 Perchlorate		8260		Evaluation monitoring
ECL	[[]	R	8260	1	8260		Interim corrective action
French-						İ	
drain						ŀ	
SHALLOW	RS WELL	S	·			-!	<u>, </u>
RS-1	1	N	8260	T	18260	1	Evaluation monitoring
			8015		8015	1	B/351
			Perchlorate			1	
RS-2		N	Perchlorate	-		1	<u> </u>
RS-3		R		· · · · · · · · · · · · · · · · · · ·		 	
RS-4	1	N		 		1	
RS-5	1	N		l			
RS-6	1	R	Perchlorate	 		7	
RS-7	1	N	8260	†	8260	1	Evaluation monitoring
RS-8	11	N		App IX		8260	Point of compliance
RS-9	111	R	<u> </u>	 			
RS-10	II	N	8260 Perchlorate		8260		Evaluation monitoring
RS-11	IV	D	8260 Perchlorate 900.0 901.1 906.0		8260		Evaluation monitoring
RS-12	III	R					
RS-13	11	N	8260 Perchlorate		8260		Evaluation monitoring
RS-14	111	R		·	1	1	
RS-15	111	N			1		<u> </u>
RS-16	IV	D	8260 Perchlorate 900.0 906.0				B/056 landfill
RS-17	111	R	300.0		1	1	
· · · · · · · · · · · · · · · · · · ·			L		<u></u>	<u> </u>	

TABLE B-1 2002 ANNUAL MONITORING SCHEDULE Boeing Santa Susana Field Laboratory Ventura County, California

					L METHODS		_	
Well ID	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling	
		-	Quarter	Quarter	Quarter	Quarter	Plan	
RS-54	IV	D	8260		8260		FSDF	
			TM		TM			
			Perchlorate		Perchlorate		İ	
			900.0		900.0			
			901.1		901.1			
			906.0, U, Th		906.0, U, Th			
SHALLOW	ES WELL							
ES-1	1	R	8260		8260		Interim corrective action	
ES-2	1	R	8260					
			Perchlorate					
ES-3	1	R	8260		8260		Interim corrective action	
ES-4	1	R	8260		8260		Interim corrective action	
ES-5	1	R	8260		8260		Interim corrective action	
ES-6	1	R	8260		8260		Interim corrective action	
ES-7	1	R	8260		8260		Interim corrective action	
ES-8	1	R						
ES-9	1	R	8260					
			Perchlorate					
ES-10	1	R	8260					
			Perchlorate		j		1	
ES-11	ı	R	8260		8260		Interim corrective action	
ES-12	ĺ	R	8260 Perchlorate					
ES-13		R	r oroniorate		 			
ES-14	111	R	8260		8260		Interim corrective action	
ES-15	111	R	0200		10200		Three transfer of the control of the	
ES-16		R						
ES-17	111	R	8260		8260		Interim corrective action	
ES-18	11	R	0200		10200		Interim Concouve acuon	
ES-19		R			 			
ES-20	<u>;;</u>	R						
ES-21		R	8260		8260		Interim corrective action	
ES-22	11	R	8260		8260		Interim corrective action	
ES-23	111	R	8260		8260		Interim corrective action	
ES-24	III	R	8260		8260		Interim corrective action	
LO-24	144	•	Perchlorate		0200		Internit corrective action	
ES-25	111	R	reichiorate				 	
ES-26	111	R	8260		8260		Interim corrective action	
ES-20 ES-27	111	R	8260		8260		Interim corrective action	
	111	R	0200		8200		inteniii corrective action	
ES-28 ES-29		R						
ES-29 ES-30		R	8260		8260		Interim corrective action	
ES-31	IV	D R	8260		0200		miletin Corrective action	
E0-31	IV	U	Perchlorate					
			900.0		j [
			900.0					
			906.0					

TABLE B-1
2002 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

				ANALYTICA	L METHODS		
Well ID	Area	Sponsor	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Existing Sampling Plan
RD-15	IV	D	8260 TM Perchlorate				
			900.0 901.1 906.0 U				
RD-16	IV	D	8260	8260	8260	8260	Detection monitoring
RD-17	ĬV	D	8260 Perchlorate 900.0 901.1 906.0				RMHF
RD-18	IV	D	8260 Perchlorate	8260	8260	8260	Perimeter well
RD-19	IV	D	8260 Perchlorate	8260	8260	8260	Perimeter well
RD-20	IV	D	8260 Perchlorate				
RD-21	IV	D	8260 TM 900.0 901.1 906.0		8260 TM		FSDF FLUTe sampling system
RD-22	IV	D	8260, TM, CN 900.0 901.1 906.0	8260	8260	8260	FSDF Perimeter well
RD-23	IV	D	8260 TM 900.0 901.1 906.0		8260 TM		FSDF FLUTe sampling system
RD-24	IV	D	8260 Perchlorate 900.0 901.1 906.0		8260 900.0 901.1 906.0		B/059
RD-25	IV	D	8260 Perchlorate 900.0 901.1 906.0		8260 900.0 901.1 906.0		B/059
RD-26	II	N	8260 Perchlorate		8260		Evaluation monitoring

TABLE B-1
2002 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

			_	ANALYTICA	L METHODS		
Well ID	Area	Sponsor	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Existing Sampling Plan
RD-34A	UL,	D	8260	1	8260	1	RMHF
	NW		ТМ	1	906.0		j
	of		CN	ļ] .		
	Area IV		900.0				
	•		901.1			1	
			906.0, U, Th				
RD-34B	UL,	D	8260		8260		RMHF
	NW		ТМ	1	906.0	}	
	of		CN				· -
	Area IV		900.0				
			901.1	i		l	
			906.0				
RD-34C	UL,	D	8260		8260		RMHF
	NW		ТМ	1	906.0		ĺ
	of		CN				
	Area IV		900.0			}	
			901.1	1	1		
			906.0	['			
RD-35A	j	N	8260			<u> </u>	
RD-35B	1	N	8260	1			
RD-36A	Off-	N	8260		8260		Evaluation monitoring
	site,		8015	ļ	8015	1	B/351
	NE of						
	Area I						
RD-36B	Off-	N	8260		8260		Evaluation monitoring
	site,		8015		8015		B/351
	NE of						
	Area I		Į	1	1	i	
RD-36C	Off-	N	8260		8260		Evaluation monitoring
	site,		8015	Į.	8015	1	B/351
	NE of			{	1	1	1
	Area I					1	
RD-36D	Off-	N	8260		8260		B/351
	site,		8015		8015		
	NE of		ļ				
	Area I			<u> </u>			
RD-37	Off-	N	8260	8260	8260	8260	Detection monitoring
	site,		8015	1	8015		B/351
	NE of			1	1	ŀ	ł
	Area I						·
RD-38A	Off-	N	8260		8260		Evaluation monitoring
	site,		8015	1	8015	1	B/351
	NE of				1		FLUTe sampling system
	Area (
RD-38B	Off-	N	8260	8260	8260	8260	B/351
	site,		8015		8015	1	
	NE of				1		
	Area I		[Í	_[

TABLE B-1 2002 ANNUAL MONITORING SCHEDULE Boeing Santa Susana Field Laboratory Ventura County, California

				ANALYTICA	L METHODS		
Well ID	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling
AAGII ID	Area	Sponsor	Quarter	Quarter	Quarter	Quarter	Plan
RD-51A	11	N	8260		8260		Evaluation monitoring
			Perchlorate				
RD-51B	II	N	8260		8260		Evaluation monitoring
			Perchlorate			ł	
RD-51C	li li	N	8260	8260	8260	8260	Detection monitoring
RD-52A	ı	N	8260	1	8260		Evaluation monitoring
			Perchlorate				
RD-52B	1	N	8260		8260		Evaluation monitoring
			Perchlorate	1		1	,
RD-52C	1	N	8260	8260	8260	8260	Detection monitoring
RD-53	1	N	8260		8260		B/351
			8015	1	8015		FLUTe sampling system
			Perchlorate	ł		ļ	l'and a sampling by same
RD-54A	IV	D	8260		8260		FSDF
		_	TM		ТМ		FLUTe sampling system
			900.0		906.0	1	1 20 to camping cyclon
			901.1	1	1000.0		
			906.0, U, Th				
RD-54B	IV	D	8260		8260		FSDF
ND-04D	1.4	D	TM	İ	TM	1	1 301
			900.0		906.0		
			901.1		1900.0		
			906.0				1
RD-54C	IV	D	8260	 	8260	-	FSDF
KD-54C	IV	U	7M		E .		FOUR
			,	l	TM	1	}
			900.0		906.0		İ
			901.1				
55.5	411		906.0	 	1,000	 	1
RD-55A	111	N	8260		8260		Evaluation monitoring
			Perchlorate	<u> </u>			
RD-55B	111	N	8260		8260	1	Evaluation monitoring
			Perchlorate				<u> </u>
RD-56A	UL, N of	N	8260				
	Area III			<u> </u>			
RD-56B	UL, N of	N	8260	8260	8260	8260	Perimeter well
	Area III				TM		
RD-57	UL, NW	D	8260	8260	8260	8260	FSDF
	of		TM	1	906.0	1	Perimeter well
	Area IV		900.0		1	1	FLUTe sampling system
			901.1				
			906.0				
RD-58A	111	N	8260				Evaluation monitoring
RD-58B	111	N	8260	8260	8260	8260	Detection monitoring
RD-58C	111	N	8260	1	8260		Evaluation monitoring

TABLE B-1 2002 ANNUAL MONITORING SCHEDULE Boeing Santa Susana Field Laboratory Ventura County, California

	<u></u>			ANALYTICA	L METHODS		
Well ID	Area	Sponsor	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Existing Sampling Plan
RD-71	Off-site, NE of	N	8260	8260	8260	8260	Perimeter well FLUTe sampling system
	Area I					<u> </u>	
RD-72		N	8260				FLUTe sampling system
RD-73	ı	R	8260			1	UT 37
			8015	ļ	-	<u> </u>	FLUTe sampling system
55.74	n.		Perchlorate	10000	10000	10000	0/050
RD-74	IV	D D	8260	8260	8260	8260	B/056
	ORTH FORM						lei (le
HAR-1	I	<u>R</u>	Perchlorate				FLUTe sampling system
HAR-5	11	R	Perchlorate				
HAR-6	11	N	8260 Perchlorate				
HAR-7	11	R		App IX		8260	Point of compliance
HAR-8	11	N	<u> </u>	1			
HAR-16	ſ	R		App IX		8260	Point of compliance FLUTe sampling system
HAR-17	[]	R		App IX		8260	Point of compliance
HAR-18	111	R	8260		8260		Interim corrective action
HAR-19	11	R	8260				
HAR-20	{(N	8260				
HAR-21	11	R	8260 Perchlorate				
HAR-22	11	N	8260 Perchlorate		8260		Evaluation monitoring
HAR-23	111	R	8260 Perchlorate		8260		Evaluation monitoring
HAR-24	- 1	R	8260		8260		Evaluation monitoring FLUTe sampling system
HAR-25		N.	8260 Perchlorate				1 2010 damping dyotom
HAR-26	III	R	8260	<u> </u>	8260		Evaluation monitoring
	RTH FORM			<u></u>	102.00	_1	
WS-4A		N	8260	8260	8260	8260	Detection monitoring
WS-5	i	R	8260	10000	8260		Interim corrective action
WS-6	- i	R	8260		8260	1	Interim corrective action
WS-7	IV	D			1	 	
WS-8	III	R				T	
WS-9	ıı ı	R	8260	1	8260	1	Interim corrective action
WS-9A	[]	R	8260	1	8260	1	Interim corrective action
WS-9B	11	R	<u> </u>	1	1	1	
WS-11	111	R		1	1	1	
WS-12	1	R				1	
WS-13	11	R					
WS-14	1	R					
WS-SP	li	N					

ANALYTICAL METHODS 2002 MONITORING SCHEDULE

Analytes/EPA Methodology

8260 =	EPA method 8260 for volatile organic compounds (most recent version).
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8270 = EPA method 8270 for base/neutral and acid organic compounds.

8015 = EPA method 8015 modified for fuel hydrocarbons.

CN = Cyanide, EPA method 9012.

TM = Trace metals, including antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium and zinc using EPA methods 6010

and 6020.

Perchlorate = EPA method 300M, modified by the State of California for determination of

perchlorate by ion chromatography with suppressed conductivity detection.

Appendix IX

Note: The laboratory uses the most current methods which may be updated from methods listed in Appendix IX (Code of Federal Regulations, Title 40, Part 264, Appendix IX, Ground-water Monitoring List).

8081	=	EPA method 8081 for pesticides.
8082	=	EPA method 8082 for PCBs.

8141A = EPA method 8141A for organophosphorus pesticides.

8151A = EPA method 8151A for herbicides.

8260 = EPA method 8260 for expanded list of volatile organic compounds. 8270 = EPA method 8270 for base/neutral and acid organic compounds.

8290 = EPA method 8290 for dioxins and furans.

Metals = EPA method 6020 series for metals.

CN = EPA method 9012 for cyanide.

Sulfide = EPA method 376.2 for sulfide.

Radiochemical Parameters

900.0 = EPA method 900.0 for gross alpha and beta radioactivity 901.1 = EPA method 901.1 for gamma-emitting radionuclides

906.0 = EPA method 906.0 for tritium

U = EPA method 907.0 for isotopic uranium
Th = EPA method 907.0 for isotopic thorium

Note: An equivalent or superior in-house laboratory procedure will be considered acceptable for EPA methodology. Lab will use the most current promulgated version of each EPA method.

Evaluation Monitoring

Evaluation monitoring wells, including the point of compliance wells, will be sampled at least annually for EPA method 8260, which will detect the constituents specified in Table 5 of the post-closure permit: tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1-dichloroethane, 1,2-dichloroethane, vinyl chloride, carbon tetrachloride, methylene chloride, chloroform, methyl ethyl ketone, benzene, toluene, xylenes, and ethylbenzene.

Point of compliance wells also will be sampled every other year for a full suite of Appendix IX parameters. The sampling schedule will be 1993, 1995, 1997...etc., for all wells. The analytical parameters are listed in 40 CFR 264, Appendix IX. During off-years, wells will be sampled for a modified Appendix IX list annually (standard list of constituents for EPA methods 8260 and 8270, plus 1,4-dioxane, nitrobenzene, 1,3-dinitrobenzene, and N-nitrosodimethylamine).

REFERENCES USED IN PREPARING 2002 MONITORING SCHEDULE

- California Department of Toxic Substances Control, 1994. Correspondence to Rocketdyne Environmental Protection Department, Request for Modification of Analytical Parameters for Appendix IX Sampling EPA ID Numbers CAD093365435 and CA18000900100 Santa Susana Field Laboratory (SSFL) Rocketdyne Division Facility, Santa Susana, California. September 13, 1994.
- 2 ----- 1995. Hazardous Waste Facility Post-Closure Permit, Regional Permit No. PC-94/95-3-02 and PC-94/95-3-03. Permits for Areas I and III and Area II, effective May 11, 1995. 22 California Code of Regulations, Chapter 15, Article 6.
- 3 40 CFR 264. Code of Federal Regulations, Title 40, Part 264, Appendix IX, Groundwater Monitoring List and Part 265, §265.92, Sampling and Analysis.

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
ES-30		8260B	03/01/02	
		8260B	08/14/02	
		1,4-dioxane	08/14/02	
		NDMA	08/14/02	
		8270C	08/14/02	
ES-31		Perchlorate	02/18/02	
		8260B	02/18/02	•
		8260B	02/18/02	Field duplicate
		8260B	02/18/02	Split sample
		900.0	02/18/02	
		901.1	02/18/02	
		906.0	02/18/02	
HAR-03		8260B	05/13/02	
HAR-04		8260B	03/12/02	
		8260B	03/12/02	Split sample
HAR-09		Appendix IX (except 504.1)	11/14/02	
HAR-11		8015	02/15/02	****
		8260B	02/15/02	
		8260B	08/30/02	
HAR-12		8151A	03/12/02	
		8151A	03/12/02	Field duplicate
		8151A	03/12/02	Split sample
		Appendix IX	11/20/02	
HAR-14		Appendix IX	05/07/02	
		8260B	11/08/02	
HAR-15		Appendix IX	05/07/02	
		8260B	11/08/02	
HAR-27		Perchlorate	05/14/02	
		8260B	05/14/02	
		8260B	05/14/02	Field duplicate
		8260B	05/14/02	Split sample
		1,4-dioxane	05/14/02	
		8260B	08/30/02	
		8260B	08/30/02	Field duplicate
		Appendix IX	11/06/02	
		8260B	11/06/02	Field duplicate
HAR-28		Appendix IX	11/20/02	
HAR-32		Appendix IX (only 8260,	11/21/02	
		1,4-dioxane, sulfide, 504.1,		
		trace metals, cyanide)		

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
ldentifier	Number			
RD-05C		8260B	11/11/02	
(cont'd)		8260B	11/11/02	Split sample
		Perchlorate	11/11/02	
		Appendix IX	11/19/02	
RD-06		8260B	03/08/02	
		8260B	05/09/02	
		8260B	08/28/02	•
		8260B	11/07/02	
		8260B	11/07/02	Field duplicate
		Perchlorate	11/07/02	
RD-07		8260B	02/22/02	
		900.0	02/22/02	
		901.1	02/22/02	
		906.0	02/22/02	
		907.0-Th	02/22/02	
		907.0-U	02/22/02	
	Z13	8260B	08/20/02	
	Z13	900.0	08/20/02	
	Z13	906.0	08/20/02	
RD-08		Appendix IX	11/20/02	
RD-09		8260B	03/05/02	
		8260B	08/19/02	
		1,4-dioxane	08/19/02	
RD-10		Constituents of Concern	03/05/02	
	Composite (3,6,9)	Constituents of Concern	05/09/02	
	Composite (3,6,9)	Constituents of Concern	08/20/02	
	Composite (3,6,9)	Constituents of Concern	11/07/02	
RD-13		8260B	02/25/02	
		8260B	02/25/02	Field duplicate
		8260B	02/25/02	Split sample
		8260B	05/03/02	
		8260B	05/03/02	Field duplicate
		8260B	05/03/02	Split sample
		8260B	08/15/02	
		8260B	11/04/02	
RD-14		8260B	03/04/02	
		Perchlorate	03/04/02	
RD-15		Trace Metals	03/06/02	
		8260B	03/06/02	
		Perchlorate	03/06/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
RD-23		Trace Metals	03/01/02	
		8260B	03/01/02	
		900.0	03/01/02	
		901.1	03/01/02	
		906.0	03/01/02	
		8260B	08/14/02	
		Trace Metals	08/14/02	• .
RD-24		8260B	02/25/02	
		8260B	02/25/02	Field duplicate
		8260B	02/25/02	Split sample
		Perchlorate	02/25/02	•
		900.0	02/25/02	
		901.1	02/25/02	
		906.0	02/25/02	
		8260B	11/06/02	
		900.0	11/06/02	
		901.1	11/06/02	
		906.0	11/06/02	
RD-25		Perchlorate	03/07/02	
110-20		8260B	03/07/02	
		900.0	03/07/02	
		901.1	03/07/02	
		906.0	03/07/02	
		8260B	11/06/02	
		900.0	11/06/02	
		901.1	11/06/02	
		906.0	11/06/02	
RD-26		8260B	03/04/02	
		Perchlorate	03/04/02	
DD 67		8260B	08/21/02	
RD-27		8260B	03/06/02	
		Perchlorate 900.0	03/06/02 03/06/02	
		901.1	03/06/02	
		906.0	03/06/02	
		8260B	08/22/02	
		900.0	08/22/02	
		901.1	08/22/02	
		906.0	08/22/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
I dentifier	Number			
RD-33B		Trace Metals	02/15/02	
		8260B	02/15/02	
		Cyanide	02/15/02	
		900.0	02/15/02	
		901.1	02/15/02	
		906.0	02/15/02	
		8260B	05/15/02	
		8260B	08/21/02	•
		906.0	08/21/02	
		8260B	11/13/02	•
RD-33C	· · · · · · · · · · · · · · · · · · ·	Trace Metals	02/15/02	
		Cyanide	02/15/02	
		8260B	02/15/02	
		900.0	02/15/02	
		901.1	02/15/02	
		906.0	02/15/02	
		8260B	05/15/02	
		8260B	08/20/02	
		8260B	08/20/02	Field duplicate
		906.0	08/20/02	·
		8260B	11/12/02	
RD-34B		8260B	02/15/02	
		Trace Metals	02/15/02	
		Cyanide	02/15/02	
		900.0	02/15/02	
		901.1	02/15/02	
		906.0	02/15/02	
		8260B	08/23/02	
		906.0	08/23/02	
RD-34C		Trace Metals	02/14/02	
		Cyanide	02/14/02	
		8260B	02/14/02	
		900.0	02/14/02	
		901.1	02/14/02	
		906.0	02/14/02	
		8260B	08/28/02	
		8260B	08/28/02	Field duplicate
		906.0	08/28/02	-
RD-35A		8260B	03/05/02	
		8260B	03/05/02	Field duplicate
RD-35B		8260B	03/06/02	
RD-36B		8015	02/25/02	
		8260B	02/25/02	
		Perchlorate	02/25/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
RD-41C		Perchlorate	02/25/02	
		8260B	02/25/02	
RD-42		Perchlorate	05/03/02	· · · · · · · · · · · · · · · · · · ·
		8260B	05/03/02	
RD-43A		8260B	02/21/02	
		Perchlorate	02/21/02	
		8260B	05/09/02	
		Perchlorate	08/13/02	•
		Perchlorate	08/13/02	Split sample
		8260B	08/13/02	
		8260B	10/31/02	
		Perchlorate	10/31/02	
RD-43B		8260B	02/20/02	
		Perchlorate	02/20/02	
		8260B	05/06/02	
		Perchlorate	08/12/02	
		Perchlorate	08/12/02	Split sample
		8260B	08/12/02	,
		8260B	10/31/02	
		Perchlorate	10/31/02	
RD-43C		Perchlorate	05/06/02	
		8260B	05/06/02	
		Perchlorate	08/12/02	
		Perchlorate	08/12/02	Split sample
		8260B	08/12/02	•
		8260B	08/12/02	Field duplicate
		8260B	08/12/02	Split sample
		8260B	10/31/02	•
		Perchlorate	10/31/02	
		8260B	10/31/02	Field duplicate
		8260B	10/31/02	Split sample
RD-44		Constituents of Concern	03/05/02	
		NDMA	03/05/02	Field duplicate
		NDMA	03/05/02	Split sample
		Constituents of Concern	05/07/02	, ,
		8260B	05/07/02	Field duplicate
		8260B	05/07/02	Split sample
		Constituents of Concern	08/13/02	• •
		Constituents of Concern	11/05/02	
RD-45A	Z10	8260B	03/06/02	
RD-45B	· · · · · · · · · · · · · · · · · · ·	8260B	02/26/02	
		8260B	02/26/02	Split sample
		8260B	08/21/02	•
		Appendix IX	11/13/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
RD-50		8015B	02/20/02	
		8260B	02/20/02	
		8260B	08/14/02	
RD-51B		Perchlorate	02/21/02	
		8260B	02/21/02	
		8260B	02/21/02	Field duplicate
		8260B	08/26/02	
		8260B	08/26/02	Split [*] sample
RD-51C		8260B	02/21/02	
		8260B	05/06/02	
		8260B	05/06/02	Field duplicate
		8260B	08/26/02	
		8260B	08/26/02	Split sample
		8260B	11/06/02	
		8260B	11/06/02	Field duplicate
		8260B	11/06/02	Split sample
RD-52B		8260B	02/20/02	
		Perchlorate	02/20/02	
		8260B	08/26/02	
RD-52C		8260B	02/21/02	
		8260B	05/08/02	
		8260B	11/12/02	
		8260B	11/12/02	Field duplicate
		8260B	11/12/02	Split sample
RD-53	Z 5	8015	03/06/02	······································
	Z 5	Perchlorate	03/06/02	
	Z 9	8260B	03/06/02	
RD-54A	•	Trace Metals	02/27/02	
		8260B	02/27/02	
		900.0	02/27/02	
		901.1	02/27/02	
		906.0	02/27/02	
		907.0-Th	02/27/02	
		907.0-U	02/27/02	
		8260B	08/14/02	
		906.0	08/14/02	
		Trace Metals	08/14/02	
RD-54B		Trace Metals	02/27/02	
		8260B	02/27/02	
		900.0	02/27/02	
		901.1	02/27/02	
		906.0	02/27/02	
		8260B	08/21/02	
		906.0	08/21/02	
		Trace Metals	08/21/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Weli	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
RD-58B		8260B	08/12/02	Split sample
(cont'd)		8260B	11/07/02	
		Perchlorate	11/07/02	
		Appendix IX	11/19/02	
RD-58C		8260B	02/18/02	
•		8260B	08/12/02	
_		Appendix IX	11/19/02	
RD-59A		Trace Metals	02/28/02	•
		8260B	02/28/02	
		Perchlorate	02/28/02	
		900.0	02/28/02	
		901.1	02/28/02	
		906.0	02/28/02	
		Perchlorate	05/14/02	
		8260B	05/14/02	
		Perchlorate	08/08/02	
		8260B	08/08/02	
		906.0	08/08/02	
	,	Trace Metals	08/08/02	
		8260B	11/12/02	
		Perchlorate	11/12/02	
RD-59B		Trace Metals	02/28/02	
		8260B	02/28/02	
		Perchlorate	02/28/02	
		900.0	02/28/02	
		901.1	02/28/02	
		906.0	02/28/02	
		8260B	05/02/02	
		Perchlorate	08/08/02	
		8260B	08/08/02	
		906.0	08/08/02	
		Trace Metals	08/08/02	
		8260B	11/12/02	_
RD-59C		Trace Metals	02/28/02	
		8260B	02/28/02	
		Perchlorate	02/28/02	
		900.0	02/28/02	
		901.1	02/28/02	
		906.0	02/28/02	
		8260B	05/02/02	
		Perchlorate	08/08/02	
		8260B	08/08/02	
		906.0	08/08/02	
		Trace Metals	08/08/02	
		Have Merais	VUIVOIUZ	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
RD-69		8260B	02/26/02	
		8260B	08/29/02	
		8260B	08/29/02	Split sample
RD-70		8260B	03/12/02	
		8260B	03/12/02	Field duplicate
		8260B	05/09/02	
		8260B	05/09/02	Field duplicate
		8260B	08/15/02	•.
		8260B	11/13/02	
		8260B	11/13/02	Field duplicate
		8260B	11/13/02	Split sample
RD-71	Z10	8260B	03/06/02	
	Z10	Perchlorate	03/06/02	.
	Z10	Perchlorate	03/06/02	Split sample
	Z10	8260B	05/09/02	
		8260B	08/19/02	
		8260B	08/19/02	Field duplicate
		8260B	08/19/02	Split sample
	-	8260B	10/30/02	
RD-72	Z7	8260B	03/06/02	
RD-73	Z10	8260B	03/06/02	
	Z6	8015	03/06/02	
	Z9	Perchlorate	03/06/02	
HAR-01	Z10	Perchlorate	03/06/02	
	Composite (6,7,8,9,10)	Appendix IX (8260B only)	11/04/02	
HAR-05		Perchlorate	03/04/02	
HAR-06		8260B	03/04/02	
		Perchlorate	03/04/02	
HAR-07		Appendix IX	05/14/02	
HAR-08		Appendix IX	11/20/02	
HAR-16	Composite	Appendix IX (only 8260B,	11/05/02	
	(7,8,9,10,11,12)	8270C, 1,4-dioxane)		
HAR-17	(*,1=,0,1,0,1,1,0,1,0,1,0,1,0,1,0,1,0,1,0,	Appendix IX	05/07/02	
HAR-18		8260B	03/04/02	
, ., . 10		8260B	03/04/02	Field duplicate
				r leid duplicate
		8260B	08/14/02	
		1,4-dioxane	08/14/02	
		NDMA	08/14/02	
		8270C	08/14/02	
HAR-21		Perchlorate	03/07/02	
		8260B	03/07/02	
		Appendix IX	11/06/02	

TABLE B-2
SUMMARY OF SAMPLING AND ANALYSES FOR WELLS AND SPRINGS
QUARTERLY GROUNDWATER MONITORING PROGRAM, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	FLUTe Port	Analysis	Date Sampled	QA/QC
Identifier	Number			
WS-09A		8260B	11/11/02	
(cont'd)		Perchlorate	11/11/02	
		Appendix IX	11/20/02	
		(except 1625M-NDMA)		1.70
OS-02		Perchlorate	03/01/02	
		8260B	03/01/02	
OS-03		Perchlorate	03/01/02	•
OS-05		Perchlorate	03/01/02	
OS-08		8260B	02/28/02	
		Perchlorate	02/28/02	
OS-10		Perchlorate	02/28/02	
OS-16		8260B	03/12/02	
		8260B	03/12/02	Field duplicate
		Perchlorate	03/12/02	
		Perchlorate	08/23/02	
		Perchlorate	08/23/02	Field duplicate
		Perchlorate	08/23/02	Split sample
		8260B	08/23/02	, .
		8260B	10/31/02	
		8260B	10/31/02	Field duplicate
		8260B	10/31/02	Split sample
OS-17		Perchlorate	03/14/02	
		8260B	03/14/02	
		Perchlorate	08/28/02	
		Perchlorate	08/28/02	Field duplicate
		Perchlorate	08/28/02	Split sample
		8260B	08/28/02	-,
		Perchlorate	12/18/02	
OS-21		Perchlorate	03/06/02	
		8260B	03/06/02	
		Perchlorate	11/12/02	
OS-24	Z15	8260B	03/06/02	
	Z15	8260B	08/20/02	
OS-26		Perchlorate	03/08/02	
		8260B	03/08/02	
		8260B	08/30/02	
OS-27	· · · · · · · · · · · · · · · · · · ·	Perchlorate	03/08/02	
UU-21		8260B	03/08/02	
				Field duplicate
		8260B	03/08/02	rieid duplicate

MODIFIED APPENDIX IX CONSTITUENTS

Point of compliance wells are sampled every other year for a modified Appendix IX list of parameters. The sampling schedule will be 1996, 1998, 2000, etc.

Modified Appendix IX analyses include: EPA method 8260 EPA method 8270 1,4-dioxane

CONSTITUENTS OF CONCERN

Constituents of Concern include compounds listed in Table 3 of the Post Closure Permit and 1,3-dinitrobenzene and perchlorate.

Constituent of Concern analyses include:
EPA method 8260B
EPA method 8270C
Low-level NDMA by modified EPA method 8270 or 1625
Low-level 1,4-dioxane by EPA method 8260 SIM
EPA method 300.0 for fluoride and nitrate
EPA method 350.3 for ammonia
Modified EPA method 300.0 for perchlorate
EPA method 8315 for formaldehyde

TABLE B-3
2003 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	Area	Sponsor	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Existing Sampling Plan
RS-18	IV	D	8260		8260		FSDF
			Perchlorate		900.0		İ
			900.0		901.1		
			901.1		906.0		
			906.0		U,Th		
			TM		0,111		
DC 40	1	A1	U, Th		0000		Frank - Cara - C
RS-19	1	N	8260		8260		Evaluation monitoring
			Perchlorate		4		
RS-20		R					
RS-21	11	R	8260		8260		Evaluation monitoring
RS-22	11	R					
RS-23	IV	D	8260				
			8015		1		
			Perchlorate				
			900.0				}
			901.1		1		
			906.0				
			U				
RS-24	1V	D	Perchlorate		 		}
110-24	14	U	900.0				
			901.1		1		
			906.0				
50.55			U				
RS-25	IV	D	Perchlorate				
			900.0				
			901.1		1		
			906.0]		
			U				
RS-27	IV	D	Perchlorate				
RS-28	IV	D	8260				RMHF
			Perchlorate				
			900.0				
			901.1				
			906.0				
RS-29	li .	R	-				
RS-30	i	R	8260		8260		B/351
	·		8015		8015		
			Perchlorate				
RS-31	1	R	8260		8260		B/351
110-51	•	13	8015		8015		0/331
RS-32	1	R	8260		8260		B/351
NO-32	1	ĸ					10001
DC 54	Α,		8015		8015		FORE
RS-54	IV	D	8260		8260		FSDF
			TM		TM		
			Perchlorate		Perchiorate		
			900.0		900.0		
			901.1		901.1		
			906.0, U, Th		906.0, U, Th		ĺ

TABLE B-3
2003 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID HAR-12 HAR-13 HAR-14 HAR-15	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling	
HAR-13 HAR-14 HAR-15		- 11		Quarter	Quarter	Quarter	Quarter	Plan
HAR-14 HAR-15		N						
HAR-15		N						
	11	N		App IX		8260	Point of compliance	
1115 65	- 11	N		App IX		8260	Point of compliance	
HAR-27		N	8260		8260		Evaluation monitoring	
HAR-28	ll_	N						
HAR-29	- 11	R						
HAR-30		N						
HAR-31	11	N					•	
HAR-32	111	R						
HAR-33	111	R						
HAR-34	111	R						
	RTH FORM	ATION RD V						
RD-1		R	8260		8260		Interim corrective action	
			Perchlorate	<u></u>	Perchlorate			
RD-2	l	R	8260		8260		Interim corrective action	
RD-3	l l	N	8260		8260		Evaluation monitoring	
RD-4		R	8260		8260		Interim corrective action	
RD-5A	UL, S of Area II	N	8260		8260		Evaluation monitoring	
RD-5B	UL, S of Area II	N	8260	8260	8260	8260	Detection monitoring	
RD-5C	UL, S of Area II	N	8260	8260	8260	8260	Detection monitoring	
RD-6	UL, S of Area II	N	8260	8260	8260	8260	Background	
RD-7	IV	D	8260 900.0 901.1 906.0, U, Th		8260 900.0 906.0		B/056 landfill FLUTe sampling systen	
RD-8	111	R						
RD-9	1)	R	8260		8260		Interim corrective action	
RD-10	1	N	8260 Perchlorate		8260 Perchlorate		Evaluation monitoring FLUTe sampling system	
RD-11	111	R	1					
RD-12	10	R						
RD-13	IV	D	8260	8260	8260	8260	Background	
RD-14	IV	D	8260 Perchlorate					
RD-15	IV	D	8260 TM Perchlorate 900.0 901.1 906.0 U					
RD-16	IV	D	8260	8260	8260	8260	Detection monitoring	

TABLE B-3 2003 ANNUAL MONITORING SCHEDULE Boeing Santa Susana Field Laboratory Ventura County, California

					L METHODS		
Well ID	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling
			Quarter	Quarter	Quarter	Quarter	Plan
RD-29	١٧	D	8260	Ĭ		1	
			Perchlorate				
			900.0]		
			901.1			ľ	
			906.0				
			U	<u> </u>	<u> </u>		
RD-30	₹V	D	8260		8260		RMHF
			Perchlorate		900.0		
			900.0	1	901.1		1.
			901.1	1	906.0		1
			906.0		1	1	
RD-31	I	N	8260	1			FLUTe sampling systen
			Perchlorate		1		
RD-32	Off-site,	N	8260	8260	8260	8260	Detection monitoring
	NE of		8015		8015		B/351
	Area I		1		ļ		
RD-33A	UL,	D	8260		8260		FSDF
	NW		тм	Ì	1		FLUTe sampling system
	of		CN	1	1		
	Area IV		900.0				
			901.1				
			906.0			1	
RD-33B	UL,	D	8260	8260	8260	8260	FSDF
	NW		ТМ		906.0		Perimeter well
	of		CN	1			
	Area IV		900.0	ĺ			
			901.1				1
			906.0				
RD-33C	UL,	D	8260	8260	8260	8260	FSDF
	NW	_	TM		906.0		Perimeter well
	of		CN				
	Area IV		900.0		1	1	į.
	,		901.1		1		1
			906.0				Ì
RD-34A	UL,	D	8260		8260		RMHF
	NW	_	TM		906.0		
	of		CN				
	Area IV		900.0	}	}	1	1
	7		901.1	}			
			906.0, U, Th				
RD-34B	UL,	D	8260	 	8260	 	RMHF
	NW	_	TM		906.0		[
	of		CN		1		
	Area IV		900.0]	J	J	
			901.1			1	
			906.0	1			

TABLE B-3
2003 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

Well ID	Area	Sponsor	First	Second	Third	Fourth	Existing Sampling
			Quarter	Quarter	Quarter	Quarter	Plan
RD-41C	II	N	8260 Perchlorate				
RD-42	11	N	8260 Perchlorate				
RD-43A	Off-site, Near Area I	N	8260 Perchlorate	8260	8260	8260	Detection monitoring
RD-43B	Off-site, Near Area I	N	8260 Perchlorate	8260	8260	8260	Detection monitoring
RD-43C	Off-site, Near Area I	N	8260 Perchlorate	8260	8260	8260	Detection monitoring
RD-44	I	N	8260	8260	8260	8260	Detection monitoring
RD-45A	Ī	N	8260		8260		Evaluation monitoring
RD-45B	J	N	8260		8260		Evaluation monitoring
RD-45C	1	N	8260		8260		Evaluation monitoring
RD-46A	ı	N	8260 Perchlorate		8260		Evaluation monitoring
RD-46B	1	N	8260		8260		
RD-47	I	N	8260 Perchlorate		8260		Evaluation monitoring
RD-48A	UL, SW of Area I	N	8260	8260	8260	8260	Background
RD-48B	UL, SW of Area I	N	8260	8260	8260	8260	Background
RD-48C	UL, SW of Area I	N	8260	8260	8260	8260	Background
RD-49A	11	N	8260	· · · · · ·			
RD-49B	11	N	8260				
RD-49C	11 .	N	8260				
RD-50	IV	D	8260 8015		8260		Perimeter well FLUTe sampling system
RD-51A	ĬI	N	8260 Perchlorate		8260		Evaluation monitoring
RD-51B	11	N	8260 Perchlorate		8260		Evaluation monitoring
RD-51C	li li	N	8260	8260	8260	8260	Detection monitoring
RD-52A	ı	N	8260 Perchlorate		8260		Evaluation monitoring
RD-52B	l	N	8260 Perchlorate		8260		Evaluation monitoring
RD-52C	ı	N	8260	8260	8260	8260	Detection monitoring
RD-53	ı	N	8260 8015 Perchlorate		8260 8015		B/351 FLUTe sampling system

TABLE B-3
2003 ANNUAL MONITORING SCHEDULE
Boeing Santa Susana Field Laboratory
Ventura County, California

				ANALYTICA	L METHODS		
147 11 15	_	_	First	Second	Third	Fourth	Existing Sampling
Well ID	Area	Sponsor	Quarter	Quarter	Quarter	Quarter	Plan
RD-61	J	N	8260	8260	8260	8260	Detection monitoring
RD-62	UL, S of Area I	N	8260	8260	8260	8260	Detection monitoring
RD-63	IV	D	8260 900.0 901.1 906.0		8260		RMHF Area IV extraction
RD-64	IV	IV D					FSDF FLUTe sampling system
RD-65	IV	D	8260				FSDF FLUTe sampling system
RD-66	Off-site, NE of Area I	N	8260	8260	8260	8260	Perimeter well
RD-67	UL, S of Area IV	N	8260		8260		Perimeter well
RD-68A	Off-site, N of Area III	N	8260	8260	8260	8260	Perimeter well
RD-68B	Off-site, N of Area III	N	8260	8260	8260	8260	Perimeter well
RD-69	1	N	8260		8260		Perimeter well
RD-70	UL, N of Area II	N	8260	8260	8260	8260	Perimeter well
RD-71	Off-site, NE of Area I	N	8260	8260	8260	8260	Perimeter well
RD-72	11	N	8260				FLUTe sampling system
RD-73	1	R	8260 8015 Perchlorate				UT 37 FLUTe sampling system
PD-74	IV			8260	8260	8260	B/056
CHATSWO	RTH FORM	D ATION HAR	8260 WELLS	[8260	[8260	[8260	[B/056
HAR-1	1	R	Perchlorate	T	1	T	FLUTe sampling system
HAR-5	i l	R	Perchlorate				
HAR-6	II	N	8260 Perchlorate				
HAR-7	[[R		App IX		8260	Point of compliance
HAR-8	11	N					
HAR-16		R		App IX		8260	Point of compliance FLUTe sampling system
HAR-17	11	R		App IX		8260	Point of compliance
HAR-18	111	R	8260	 	8260		Interim corrective action
HAR-19	[[R	8260	ļ			
HAR-20	H	N	8260	<u></u> _			<u> </u>

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Well ID	Area	Sponsor	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Existing Sampling Plan
OS-26	Off-Site	N	8260 Perchlorate		8260		
OS-27	Off-Site	N	8260 Perchlorate				

Detection Monitoring

Detection monitoring wells will be sampled quarterly for EPA method 8260, which will detect the constituents specified in Table 6 of the post-closure permit: tetrachloroethylene, trichloroethylene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, cis-1,2-dichloroethylene, trans-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1-dichlor 1,2-dichloroethane, vinyl chloride, carbon tetrachloride, methylene chloride, and chloroform.

Interim Corrective Action Monitoring

All extraction wells will be included in the interim corrective action monitoring. These wells will be sampled annually for EPA method 8260, which will detect the constituents specified in Table 5 of the post-closure permit. The constituents are listed above under "Evaluation Monitoring."

Area IV Monitoring

Area IV sampling schedule subject to revision.

Note:

Isotopic uranium, to be analyzed using EPA method 907.0

Th

Isotopic thorium, to be analyzed using EPA method 907.0

Background Monitoring

The five background wells will be sampled quarterly for the expanded list of monitoring parameters (EPA method 8260) specified in Table 5 of the post-closure permit.

Background wells are sampled every five years for the constituents of concern (Table 3 of the post closure permit) on a schedule that will follow 1994, 1999, ... etc. The background wells and the detection monitoring wells were all sampled for constituents of concern in 1996. The background wells were sampled again for constituents of concern in 1999. Background wells and detection monitoring wells were sampled for constituents of concern in 2000.

Notes:

F

= Fluoride, EPA method 340.2

8270

 NO_3

EPA method 8270 for acid and base/neutral semi-volatile compounds.

including N-nitrosodimethylamine (NDMA), nitrobenzene, and

1,3-dinitrobenzene

Ammonia Formaldehyde

Ammonia, EPA method 350.2 Formaldehyde, EPA method 8315 =

Nitrate, EPA method 353.2

1.4-dioxane

1,4-dioxane, EPA method 8260 for volatile organic compounds

FLUTe Sampling System

FLUTe sampling system - indicates wells that currently are, or will be, equipped with FLUTe multi-port sampling systems in 2003. Samples will be collected from the FLUTe multi-port sampling systems per the previously approved workplan(s).

Laboratory Services

Laboratories will be certified by the State of California for the appropriate analytical methods.

During sampling, the field parameters of turbidity, pH, temperature and specific conductance will be measured.

Appendix C

APPENDIX C

MONITOR WELL CONSTRUCTION DATA



TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	C	asing	Sealed	Dodovstod	Measuring	Dete
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	Interval (feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Perforated Interval (feet)	Point Elevation (ft MSL)	Date Drilling Completed
Shallow We										
SH-01	!!!	10	16	0 - 10.0	4	0 - 10.0	0 - 5.0	5.5 - 10.0	1772.84	12/11/84
SH-02	111	10.6	16	0 - 10.6	4	0 - 10.6	0 - 5.0	6.0 - 10.6	1762.76	12/11/84
SH-03	- !!!	9.5	16	0 - 9.5	4	0 - 9.5	0 - 4.6	5.0 - 9.5	1762.53	12/12/84
SH-04	111	17	16	0 - 17.0	4	0 - 13.0	0 - 8.0	9.0 - 13.0	1765.08	12/12/84
SH-05	111	10.5	16	0 - 10.5	4	0 - 10.5	0 - 5.6	6.0 - 10.5	1762.97	12/13/84
SH-06	111	11.5	16	0 - 11.5	4	0 - 11.5	0 - 6.2	7.0 - 11.5	1776.99	12/17/84
SH-07	111	13.5	16	0 - 13.5	4	0 - 13.5	0 - 8.5	9.5 - 13.5	1775.11	01/16/85
SH-08	111	12	16	0 - 12.0	4	0 - 11.4	0 - 5.2	5.9 - 11.4	1763.25	01/17/85
SH-09	111	9	16	0 - 9.0	4	0 - 9.0	0 - 3.5	4.0 - 9.0	1761.19	01/18/85
SH-10	111	8	16	0 - 8.0	4	0 - 7.5	0 - 2.0	3.0 - 7.5	1757.69	01/18/85
SH-11	111	17.5	16	0 - 17.5	4	0 - 17.5	0 - 11.0	13.0 - 17.5	1756.00	01/16/85
RS-01		24.5	16	0 - 24.5	4	0 - 24.5	0 - 12.5	14.5 - 24.5	1878.60	06/08/85
RS-02	1	26	16	0 - 26.0	4	0 - 26.0	0 - 15.0	16.0 - 26.0	1901.28	06/08/85
RS-03	l	21	16	0 - 21.0	4	0 - 21.0	0 - 10.0	11.0 - 21.0	1834.22	06/08/85
RS-04	1	30	16	0 - 30.0	4	0 - 30.0	0 - 18.0	20.0 - 30.0	1826.56	06/08/85
RS-05		20	16	0 - 20.0	4	0 - 20.0	0 - 7.5	10.0 - 20.0	1783.73	06/07/85
RS-06	ı	18	16	0 - 18.0	4	0 - 18.0	0 - 7.0	8.0 - 18.0	1757.43	06/07/85
RS-07	1	7.5	16	0 - 7.5	4	0 - 7.5	0 - 1.6	2.5 - 7.5	1731.37	06/07/85
RS-08		12.5	16	0 - 12.5	4	0 - 12.5	0 - 5.0	7.0 - 12.5	1820.47	06/09/85
RS-09	111	26.2	16	0 - 26.2	4	0 - 26.2	0 - 14.2	16.0 - 26.2	1735.52	09/11/85
RS-10	11	17	16	0 - 17.0	4	0 - 17.0	0 - 6.0	7.3 - 17.0	1762.08	06/10/85
RS-11	IV	17.5	16	0 - 17.5	4	0 - 17.5	0 - 9.0	10.0 - 17.5	1789.30	06/10/85
RS-12	III	15.3	16	0 - 15.3	4	0 - 15.3	0 - 4.0	5.0 - 15.3	1727.48	06/09/85
RS-13	11	22.8	16	0 - 22.8	4	0 - 22.8	0 - 15.0	17.0 - 22.8	1644.20	06/11/85
RS-14	III	16	16	0 - 16.0	4	0 - 16.0	0 - 5.0	6.0 - 16.0	1734.78	06/09/85
RS-15	111	12	16	0 - 12.0	4	0 - 12.0	0 - 4.5	5.0 - 12.0	1764.86	06/10/85
RS-16	IV	20.5	16	0 - 20.5	4	0 - 20.5	0 - 14.5	16.5 - 20.5	1809.10	06/11/85
RS-17	111	16	16	0 - 16.0	4	0 - 16.0	0 - 4.0	6.4 - 16.0	1766.52	06/10/85
RS-18	IV	13	16	0 - 13.0	4	0 - 13.0	0 - 6.0	7.5 - 13.0	1801.09	06/12/85
RS-19	<u>;;</u>	15	16	0 - 15.0	4	0 - 15.0	0 - 4.8	4.8 - 15.0	1812.60	09/12/85
RS-20	i	20.5	16	0 - 20.5	4	0 - 20.5	0 - 8.5	10.5 - 20.5	1823.77	09/12/85

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TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	С	asing	Sealed	Perforated	Measuring	Date
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	Interval (feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Drilling Completed
ES-19		33	15	0 - 33.0	6	0 - 26.3	0 - 6.3	10.3 - 26.3	1769.44	11/11/86
ES-20	[[35	15	0 - 35.0	6	0 - 23.0	0 - 3.5	9.8 - 23.0	1770.58	11/13/86
ES-21	11	35	12	0 - 35.0	6	0 - 35.0	0 - 2.2	15.8 - 35.0	1769.62	01/26/87
ES-22	II.	35.5	12	0 - 35.5	6	0 - 35.5	0 - 5.2	17.5 - 35.5	1770.93	01/27/87
ES-23	111	20	12	0 - 20.0	6	0 - 20.0	0 - 2.4	10.6 - 20.0	1760.23	01/27/87
ES-24	111	30	12	0 - 30.0	6	0 - 30.0	0 -11.7	18.3 - 30.0	1728.67	01/28/87
ES-25	111	35	12	0 - 35.0	6	0 - 35.0	0 - 9.2	19.5 - 35.0	1737.78	01/28/87
ES-26	111	35	12	0 - 35.0	6	0 - 34.5	0 - 8.7	17.5 - 34.5	1748.01	01/28/87
ES-27	111	35	12	0 - 35.0	6	0 - 35.0	0 - 9.5	15.3 - 35.0	1740.67	01/28/87
ES-28	III	21	12	0 - 21.0	6	0 - 21.0	0 - 1.7	8.9 - 21.0	1759.15	01/28/87
ES-29	111	28	12	0 - 28.0	6	0 - 28.0	0 - 8.4	11.6 - 28.0	1760.47	01/29/87
ES-30	111	25	12	0 - 25.0	6	0 - 25.0	0 - 5.5	10.1 - 25.0	1759.51	01/29/87
ES-31	IV	25	12	0 - 25.0	6	0 - 25.0	0 - 9.7	11.6 - 25.0	1787.01	01/29/87
ES-32	111	25	12	0 - 25.0	6	0 - 21.5	0 - 4.6	7.5 - 21.5	1740.65	01/29/87
HAR-02	1	30	8	0 - 30.0	4	(v)1.1 - 30.0	0 - 6.2	15.4 - 30.0	1886.38	05/12/87
HAR-03	1	30	8	0 - 30.0	4	0 - 30.0	0 - 6.2	14.7 - 30.0	1875.48	05/13/87
HAR-04	ſ	29	8	0 - 29.0	4	0 - 29.0	0 - 6.4	12.1 - 29.0	1873.40	05/13/87
HAR-09	II .	30.5	8	0 - 30.5	4	0 - 30.5	0 - 5.9	16.1 - 30.5	1820.62	05/16/87
HAR-11	11	31	8	0 - 31.0	4	0 - 31.0	0 - 5.0	11.2 - 31.0	1827.90	05/16/87
HAR-12	111	30.5	8	0 - 30.5	4	0 - 30.5	0 - 3.5	15.5 - 30.5	1796.73	05/17/87
HAR-13	III	31.6	8	0 - 31.6	4	0 - 31.6	0 - 5.5	17.4 - 31.6	1801.18	05/17/87
HAR-14	III	40	8	0 - 40.0	4	0 - 40.0	0 - 5.5	11.8 - 40.0	1797.02	05/19/87
HAR-15	li I	40	8	0 - 40.0	4	0 - 40.0	0 - 5.0	10.2 - 40.0	1809.69	05/19/87
HAR-27	11	40	8	0 - 40.0	4	0 - 40.0	0 - 3.0	21 - 40.0	1719.39	06/14/87
HAR-28	11	40	8	0 - 40.0	4	0 - 40.0	0 - 6.0	20 - 40.0	1720.17	06/14/87
HAR-29	11	40.2	8	0 - 40.2	4	0 - 40.2	0 - 7.0	20 - 40.2	1721.88	06/14/87
HAR-30	11	35	8	0 - 35.0	4	0 - 35.0	0 - 6.5	14 - 35.0	1806.47	06/15/87
HAR-31	11	40	8	0 - 40.0	4	0 - 40.0	0 - 6.0	22 - 40.0	1812.45	06/15/87
HAR-32	111	40	8	0 - 40.0	4	0 - 40.0	0 - 6.0	21 - 40.0	1736.58	06/17/87
HAR-33	111	35	8	0 - 35.0	4	0 - 35.0	0 - 6.0	18 - 35.0	1744.66	06/17/87
HAR-34	111	23	8	0 - 23.0	4	0 - 23.0	0 - 3.0	9 - 23.0	1751.17	06/17/87

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	С	asing	Sealed	Dorfordad	Measuring	D-4-
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	(feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Perforated Interval (feet)	Point Elevation (ft MSL)	Date Drilling Completed
RD-13	IV	160	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1840.27	07/25/89
			6-1/2	30.0 - 160.0		***		Open Hole		
RD-14	IV	125	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1824.29	07/27/89
			6-1/2	30.0 - 125.0	~~	***		Open Hole		
RD-15	IV	152	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1817.70	07/27/89
			6-1/2	30.0 - 152.0				Open Hole		
RD-16	IV	220	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1808.99	08/15/89
			6-1/2	30.0 - 220.0		*		Open Hole		
RD-17	IV	125	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1836.30	08/10/89
			6-1/2	30.0 - 125.0		***		Open Hole		
RD-18	IV	240	12	0 - 30,0	8-1/4	0 - 30.0	0 - 30.0		1839.49	07/28/89
			6-1/2	30.0 - 240.0		***		Open Hole		
RD-19	IV	135	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1853.13	07/31/89
		·	6-1/2	30.0 - 135.0				Open Hole		
RD-20	IV	127	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1819.72	07/27/89
			6-1/2	30.0 - 127.0				Open Hole		
RD-21	IV	175	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1866.96	08/11/89
			6-1/2	30.0 - 175.0				Open Hole		
RD-22	ĪV	440	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1853.41	08/15/89
			6-1/2	30.0 - 440.0				Open Hole		
RD-23	IV	440	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1836.37	08/16/89
			6-1/2	30.0 - 440.0				Open Hole		
RD-24	IV	150	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1809.93	08/09/89
			6-1/2	30.0 - 150.0				Open Hole	1010 70	
RD-25	IV	175	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1810.76	08/07/89
			6-1/2	30.0 - 175.0				Open Hole		
RD-26	11	160	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1880.39	08/03/89
			6-1/2	30.0 - 160.0	***			Open Hole		
RD-27	١٧	150	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0	<u> </u>	1841.67	08/10/89
			6-1/2	30.0 - 150.0		- 00 -		Open Hole		
RD-28	IV	150	12	0 - 30.0	8-1/4	0 - 30.0	0 - 30.0		1810.92	08/10/89
			6-1/2	30.0 - 150.0				Open Hole		

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	С	asing	Sealed	Perforated	Measuring	Date
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	(feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Date Drilling Completed
RD-36A	os	95	17-1/2	0 - 20.0	12-1/8	0 - 20.0	0 - 20.0		1913.09	01/14/94
			6-1/4	20.0 - 95.0				Open Hole		
RD-36B	os	170	17-1/2	0 - 20.5	12-1/8	0 - 20.5	0 - 20.5		1915.26	03/13/94
			11-7/8	20.5 - 120.0	6-1/4	0 - 120.0	0 - 120.0			
			5-7/8	120.0 – 170.0				Open Hole		
RD-36C	os	466	26	0 - 20.0	20	0 - 20.0	0 - 20.0		1913.82	04/23/94
			15	20.0 - 198.0	10-1/8	0 - 197.0	0 - 198.0			
			5-7/8	198.0 - 466.0	4	0 - 455.5	0 - 381.0	405.0 - 455.5		
RD-36D	os	605	24-1/2	0 - 10	18	0 - 10	0 - 10		1920.08	09/10/97
			15	10 – 554	10	0 - 550	0 - 550			
			9-7/8	554 - 608	4	0 - 605	0 - 560	575 - 605		
RD-37	os	400	17-1/2	0 - 38.0	12-1/8	0 - 38.0	0 - 38.0		1870.01	01/28/94
			11-7/8	38.0 260.0	4	0 - 377.0				
			7-7/8	260.0 - 400.0				272.0 - 377.0		
RD-38A	os	120	17-1/2	0 - 20.0	12-1/8	0 - 20.0	0 - 20.0		1878.92	02/12/94
			6-1/2	20.0 - 120.0				Open Hole		
RD-38B	os	370	24	0 - 6	18	0 - 6	0 - 6		1881.45	12/15/98
			17-1/2	6 - 170	12	0 - 161	0 - 170			
			11-7/8	170 - 279	6	0 - 277	0 - 279			
			5-1/2	279 - 370	***			Open Hole		
RD-39A	OS	159	17-1/2	0 - 20.0	12-1/8	0 - 20.0	0 - 20.0		1960.23	02/02/94
			6-1/2	20.0 - 159.0				Open Hole		
RD-39B	OS	477	24	0 - 12	16	0 - 12	0 - 12		1959.48	11/11/97
			15	12 - 213	10	0 - 210	0 - 213			
			9-1/2	213 – 477	4	0 470	0 - 424	440 - 470		
			6-1/2	477 – 500			477 – 500	<u> </u>		
RD-40	11	300	12-1/4	0 - 19.5	8-1/4	0 - 19.5	0 - 19.5		1972.02	01/08/93
			6-1/4	19.5 - 300.0				Open Hole		
RD-41A	11	120	12-1/4	0 - 19.5	8-1/4	0 - 19.5	0 - 19.5		1774.48	01/10/93
			6-1/4	19.5 - 120.0				Open Hole		

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	С	asing	Sealed	Perforated	Measuring	Data
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	Interval (feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Date Drilling Completed
RD-46B	ı	328	24	0 - 20	18	0 - 20	0 - 20		1807.19	12/19/98
			17-1/2	20 - 193	12	0 - 190	0 - 193			
			9-7/8	193 - 328	4	0 - 325	0 - 281	293 - 325		
			3	328 - 366			328 - 366			
RD-47	ı	710	17-1/2	0 - 19.0	12-1/8	0 - 19.0	0 - 19.0		2045.72	04/01/93
			6-1/2	19.0 - 710.0				Open Hole		
RD-48A	UL-S	110	12-1/4	0 - 20.0	8-1/4	0 - 20.0	0 - 20.0		1736.54	03/15/93
			6-1/2	20.0 - 110.0				Open Hole		
RD-48B	UL-S	248	17-1/2	0 - 29.5	12-1/8	0 - 29.5	0 - 29.5		1735.40	05/26/93
			11-1/4	29.5 - 200.0	6-1/4	0 - 200.0	0 - 198.5			
			6-1/4	200.0 - 248.0				Open Hole		
RD-48C	UL-S	438	17-1/2	0 - 30.0	12-1/8	0 - 30.0	0 - 30.0		1734.95	05/16/93
			11-1/4	30.0 - 371.0	6-1/4	0 - 371.0	0 - 371.0			
			6-1/4	371.0 - 438.0	***	***		Open Hole		
RD-49A	II.	50	12-3/4	0 - 18.5	8-1/4	0 - 18.5	0 - 18.5		1867.25	06/08/93
			6-1/4	18.5 - 50.0	***			Open Hole		
RD-49B	11	298	17-1/2	0 - 20.0	12-1/8	0 - 20.0	0 - 20.0		1867.95	06/14/93
			11-7/8	20.0 - 250.0	6-1/4	0 - 250.0	0 - 250.0			
			5-7/8	250.0 - 298.0				Open Hole		
RD-49C	- 11	558	17-1/2	0 - 19.0	12-1/8	0 - 19.0	0 - 19.0		1869.45	07/07/93
			11-7/8	19.0 - 500.0	6-1/4	0 - 491.0	0 - 491.0			
			6-1/4	500.0 - 558.0				Open Hole		
RD-50	IV	195	12-3/4	0 - 18.5	8-1/4	0 - 18.5	0 - 18.5		1914.88	05/28/93
			6-1/4	18.5 - 195.0		***		Open Hole		
RD-51A	II.	250	24	0 - 50.0	12-1/8	0 - 50.0	0 - 50.0		1832.51	07/11/91
			11-3/4	50.0 - 160.0	6-1/4	0 - 160.0	0 - 160.0	•		
			5-1/2	160.0 - 250.0				Open Hole		
RD-51B	11	370	24	0 - 48.0	12-1/8	0 - 48.0	0 - 48.0		1832.68	07/11/91
			11-3/4	48.0 - 300.0	6-1/4	0 - 300.0	0 - 300.0			
			5-1/2	300.0 - 370.0				Open Hole		

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	В	orehole	C	asing	Sealed	Perforated	Measuring	Date
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	(feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Drilling Completed
RD-56B	UL-N	463	22	0 - 10	16	0 - 10	0 -10		1761.83	07/24/97
			15	10 - 453	10	0 - 443	0 - 443			
			6-1/2	453 - 463				Open Hole		
RD-57	UL-N	419	17-1/2	0 - 19.5	12-1/8	0 - 19.5	0 - 19.5		1774.15	02/23/94
			6-1/2	19.5 - 419.0		***		Open Hole		
RD-58A	111	126	12-1/4	0 - 19.5	8-1/4	0 - 19.5	0 - 19.5		1756.11	02/01/93
			6-1/4	19.5 - 126.0		***		Open Hole		
RD-58B	Ш	268	17-1/2	0 - 20.0	12-1/8	0 - 20.0	0 - 20.0		1761.34	08/28/94
			11-7/8	. 20.0 - 220.0	6-1/4	0 - 220.0	0 - 220.0			
			6-1/2	220.0 - 268.0				Open Hole		
RD-58C	111	498	17-1/2	0 - 19.0	12-1/8	0 - 19.0	0 - 19.0		1759.59	08/09/94
			11-7/8	19.0 - 450.0	6-1/4	0 - 450.0	0 - 450.0			
			6-1/2	450.0 - 498.0				Open Hole		
RD-59A	os	58	17-1/2	0 - 21.0	12-1/8	0 - 21.0	0 - 21.0		1340.50	05/19/94
			6-1/2	21.0 - 58.0				Open Hole		
RD-59B	os	214	17-1/2	0 - 19.5	12-1/8	0 - 19.5	0 - 19.5		1342.49	07/02/94
			6-1/2	19.5 - 214.0	22	0 - 209.0	0 - 161.0	178.0 - 209.0		
RD-59C	os	398	17-1/2	0 - 19.0	12-1/8	0 - 19.0	0 - 19.0		1345.41	07/02/94
			6-1/2	19.0 - 398.0	2	0 - 397.0	0 - 186.0			
							250.0 - 328.0	345.5 - 397.0		
RD-60	III	126	12-1/4	0 - 19.5	8-1/4	0 - 19.5	0 - 19.5		1870.40	01/21/93
			6-1/4	19.5 - 126.0				Open Hole		
RD-61	J	129	17-1/2	0 - 19.0	12-1/8	0 - 19.0	0 - 19.0		1843.88	04/26/94
			6-1/4	19.0 - 129.0				Open Hole		
RD-62	UL-S	238	17-1/2	0 - 20.7	12-1/8	0 - 20.7	0 - 19.5		1837.20	05/06/94
			6-1/2	20.7 - 238.0		***		Open Hole		
RD-63	IV	230	12-3/4	0 - 20.0	8-1/4	0 - 20.0	0 - 20.0		1764.85	05/10/94
			6-1/2	20.0 - 230.0				Open Hole		
RD-64	IV	398	12-1/4	0 - 19.0	8-1/4	0 - 19.0	0 - 19.0		1852.40	05/19/94
			6-1/2	19.0 - 398.0		***		Open Hole		
RD-65	IV	397	12-3/4	0 - 19.0	8-1/4	0 - 19.0	0 - 19.0		1819.14	08/14/94
			6-1/2	19.0 - 397.0				Open Hole		

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	Bo	orehole	С	asing	Sealed	Perforated	Measuring	Dete
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	(feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Date Drilling Completed
WS-09	II	1800	30	0 - 17.0	12-1/8	0 - 17.0	0 - 14.0		1883.99	05/08/05
			15	17.0 - 690.0						
			10	690.0 - 1800.0				Open Hole		
WS-09A	11	541	30	0 - 34.0	14	0 - 34.0	0 - 20.0		1646.00	05/09/05
			15	34.0 - 541.0	12-1/8	0 - 541.0				
					8-1/4	0 - 539.0		20.0 - 539.0		
WS-09B	II	220	16	0 - 220.0			Unknown	Open Hole	1796.89	05/09/05
WS-11	Ш	677	13	0 - 400.0	12-1/8	0 - 400.0	Unknown	200.0 - 400.0	1748.70	05/09/05
			9	400.0 - 677.0	8-1/4	365.5 - 615.0		365.0 - 615.0		
								Open Hole		
WS-12	1	1768	15	0 - 408.0	14	0 - 375.0	Unknown		1705.98	05/09/05
			12	408.0 - 1768.0		***		Open Hole		
WS-13	11	940	>13	0 - 750.0	12-1/8	0 - 750.0	0 - 15.0	22.0 - 750.0	1658.62	05/10/05
			11-1/2	750.0 - 940.0				Open Hole		
WS-14	l	1272	>16	0 - 40.0	16	0 - 40.0	Unknown		1878.23	05/10/05
			12-3/4	40.0 - 1272.0				Open Hole		
WS-SP	- 11	203	Unknown	0 - 203.0	6	0 - 203.0	Unknown	Unknown	1776.76	Unknown
HAR-01	l	110	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1874.13	05/16/87
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		8	30.0 - 110.0				Open Hole		
HAR-05	11	180	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1812.65	05/16/87
			8	30.0 - 180.0				Open Hole		
HAR-06	11	160	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1815.03	05/16/87
			8	30.0 - 160.0		***		Open Hole		·····
HAR-07	H	100	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1728.38	05/20/87
			8	30.0 - 100.0				Open Hole		******
HAR-08	Ш	130	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0	-	1730.75	05/20/87
			8	30.0 - 130.0				Open Hole		
HAR-16	ı	120	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1872.31	05/20/87
			8	30.0 - 120.0	***	***		Open Hole		
HAR-17	11	100	15	0 - 30.0	10-1/8	0 - 30.0	0 - 30.0		1711.59	05/20/87
			8	30.0 - 100.0				Open Hole		

TABLE C-1
WELL CONSTRUCTION DATA
Boeing Santa Susana Field Laboratory
Ventura County, California

		Effective	Во	rehole	С	asing	Sealed	Perforated	Measuring	Date
Well Identifier	Area No.	Borehole Depth (feet)	Diameter (inches)	Interval (feet)	Inside Diameter (inches)	Interval (feet)	Interval (feet)	Interval (feet)	Point Elevation (ft MSL)	Drilling Completed
OS-15	os	218	with Cable	Tools	8-1/4	0 - 40	0 - 40		1404.86	08/27/60
						***		Open Hole		
OS-16	os	Well Cons	truction Data	Unresolved o	r Not Available				1785.05	
OS-17	os	425	with Cable	Tools	0 – 25			1564.07		
							Open Hole			
OS-21	OS	Well Cons	truction Data	Unresolved o	r Not Available				1900.39	
OS-24	os	515	10	0 - 40	6-1/4	0 - 40	0 - 40		1947.30	12/02/87
			6	40 - 515	***	***		Open Hole		
OS-25	os	515	10	0 - 36	6-1/4	0 - 36	0 - 36		2043.58	12/10/87
			6	36 - 515				Open Hole		
OS-26	os	515	10	0 - 40	6-1/4	0 - 40	0 - 40		2080.58	11/16/87
			6	40 - 515				Open Hole		
OS-27	os	477	10-1/4	0 - 30	10	0 - 5.5	0 - 30		2043.90	05/16/95
			6-1/8	30 - 477	6	0 - 30		Open Hole		

Depth/intervals are measured in feet below land surface.

Note: Well OS-1 was converted to well RD-68B in 1997.

(---) = No casing installed over the borehole interval specified; open hole.

(v) = Top of well below land surface, installed inside zero-grade vault.

S = Spring; construction data not applicable.

UL-N = Undeveloped land north of Facility

UL-S = Undeveloped land south of Facility.

OS = Off-site

APPENDIX D

QUALITY ASSURANCE ASSESSMENT



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D-1	Summary of 2002 Split Sample Results
D-2	Summary of 2002 Duplicate Sample RPDs



I. OVERVIEW

Field and laboratory data were reviewed according to procedures outlined in the Groundwater Monitoring, Quality Assurance Project Plan, Santa Susana Field Laboratory (Groundwater Resources Consultants, Inc., 1995) following each quarterly groundwater sampling event during 2002. Results of the review are discussed in the following sections. During November 2002, several samples were collected for the analysis of Appendix IX constituents. The analytical results for these samples were subjected to a data validation process summarized in Appendix H.

II. INTRODUCTION

2.01 Quality Assurance/Quality Control Procedures

Following each quarterly groundwater sampling event during 2002, field and laboratory data were reviewed according to procedures outlined in the Groundwater Monitoring, Quality Assurance Project Plan, Santa Susana Field Laboratory (Groundwater Resources Consultants, Inc., 1995). As the project develops, it is anticipated that the quality assurance assessment conducted by Haley & Aldrich following each quarterly event will be modified. The current procedures included reviewing field forms and documentation and evaluating whether field data were complete. Analytical data were reviewed by the laboratory for precision, accuracy, representativeness, and comparability as part of its standard QA/QC program. QA/QC data were submitted as part of the laboratory QA/QC Analytical data also were reviewed by Haley & Aldrich for data package. representativeness, reproducibility, completeness, erroneous data, and discrepancies. Del Mar Analytical of Irvine, California served as the primary laboratory for all analyses except 1,4-dioxance which was analyzed by Ceimic Corporation of Naragannsett, Rhode Island. Radiochemistry analyses were conducted by Davi Laboratories of Pinole, California during the first and second quarters. The radiochemistry laboratory for the third and fourth quarters was Eberline Services of Richmond, California. Split samples were analyzed by American Analytics of Chatsworth, California; split 1,4-dioxane samples were analyzed by Del Mar Analytical. Haley & Aldrich field and analytical data reviews are summarized below.

Completeness values presented in this summary were calculated using the following equation:

$$C = \begin{bmatrix} 1 - & \underline{\text{number of incomplete results}} \\ & \text{total number requested} \end{bmatrix} \times 100$$

The values shown in parentheses in this summary are simply percentages and are not completeness values. The percentages are provided as a quick reference.



Results of QA/QC sample collection during 2002 are summarized below.

QA/QC Sample Type	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Percent of samples duplicated	17	11	14	20
Percent of samples split	11	6	16	22
Field blank completeness value	75	57	78	87
Trip blank completeness value	100	100	100	92

D. Water Quality Parameter Measurements

Each water quality parameter (pH, temperature, electrical conductivity, and turbidity) is measured at least three times before sample collection except at wells that function as extraction wells and thus are already pumping prior to the quarterly sampling event; wells that bail or pump dry prior to purging three well volumes; at private wells; at artesian wells; at flowing springs; and at wells equipped with multi-level FLUTe systems. Water quality parameters were measured at least once at all wells sampled during 2002. During the first through fourth quarters of 2002, field parameters were not measured according to established protocols at a number of wells due to sampler oversight or parameter equipment malfunction. The completeness values for field parameters measured at least three times prior to sample collection were 98%, 99%, 100%, and 85%.

3.02 Analytical Data

A. Comparison with Historical Water Quality Data

There were some instances where analyte concentrations had increased or decreased in groundwater samples collected during 2002, but most values were within the range of historic data. For several samples, constituents were detected for the first time due to the very low method detection limits reported by the laboratory. During each quarter, the laboratories were requested to confirm suspect results. Verification sampling was scheduled for a number of detection monitoring wells and perimeter wells during the year; verification results did not confirm the presence of contaminants at those wells. A summary of unusual results is included in Section 2.02 of this report.

B. Lab Performance Comparison

Results of the split samples are presented in Table D-1. Relative percent differences (RPDs) were calculated for each compound detected by both laboratories and for compounds detected at concentrations exceeding the product of five times the method detection limit times the dilution factor. RPD values calculated for 2002 split samples ranged from 0% to 48%.

During the fourth quarter 2002, spiked 1,4-dioxane samples were prepared by Environmental Resource Associates at concentrations of 10 ug/l and 100 ug/l. The



All samples were received appropriately, identified correctly, and analyzed according to the monitoring schedule. All samples were properly diluted except for one fuel hydrocarbons sample that was diluted for the initial analysis. Reanalysis of the undiluted fuel hydrocarbons sample was performed past the holding time. All samples were analyzed within the holding times, except for the undiluted fuel hydrocarbons sample, a nitrate sample, a few VOC samples, and several 1,4-dioxane samples. Following the fourth quarter, a corrective action plan for meeting the 1,4-dioxane holding time was requested from Ceimic Corporation.

Laboratory QA/QC data were obtained for each sample submitted. The bias, accuracy, and precision of the laboratory data are reviewed below.

■ Bias

Analytical data did not indicate bias with the following exceptions:

- None of the method blanks from the laboratories contained contaminants above the practical quantitation limits (PQLs) except for one method blank that contained tetrachloroethene at 1.4 ug/l. Tetrachloroethene was not detected in samples associated with this method blank. Several compounds were detected below PQLs in several method blanks, but were attributed to laboratory contamination. Therefore, no bias was indicated by the method blanks.
- The only field blank containing organic compounds above the PQLs was a field blank submitted for low-level NDMA analysis during the first quarter. The source of the field blank contamination is suspected to be de-ionized water supplied by the primary laboratory. Several compounds were detected below PQLs in many field blanks, but were attributed to laboratory contamination or carry-over contamination from previously analyzed samples. Therefore, no bias was indicated by the field blanks.
- None of the trip blanks contained organic compounds above the PQLs. Several compounds were detected below the PQLs in many of the trip blanks. Methylene chloride detected in several trip blanks was attributed to laboratory contamination, primarily from de-ionized water supplied by the laboratory. Therefore, the trip blanks did not appear to indicate bias.
- RPD values from the split sample results ranged up to 48% for VOC samples (Table D-1). Bias was indicated by only one of the 46 split samples: one VOC split sample pair exceeded the 40% RPD limit for VOCs.
- Accuracy. The percent recoveries of the LCS/LCSD, surrogate, and MS/MSD samples indicated that the water quality data were accurate. For a small number of percent recoveries that exceeded the limits, the analyte concentrations were outside the spike range for valid percent recovery



TABLE D-1 SUMMARY OF 2002 SPLIT SAMPLE RESULTS Boeing Santa Susana Field Laboratory Ventura County, California

Well ID	Date	Method	Constituent	Primary Lab	Split Lab	RPE
				Result (ug/l)	Result (ug/l)	
Shallow W						
ES-31	02/18/02	8260	1,1-Dichloroethene	0.72 J/0.64 J*	0.2 U	
ES-31	02/18/02	8260	Carbon disulfide	1.6 J/0.67 J*	0.2 U	
ES-31	02/18/02	8260	Methylene chloride	0.22 J,B,L/0.23 J,B,L*	2.0 U	
ES-31	02/18/02	8260	Trichloroethene	0.47 J/0.46 J*	0.49 J	NA
HAR-04	03/12/02	8260	1,1,1-Trichloroethane	11 J	11	NA
HAR-04	03/12/02	8260	cis-1,2-Dichloroethene	13 J	10	NA
HAR-04	03/12/02	8260	Trichloroethene	1200	970	21
HAR-12	03/12/02	8151	2,4-D	None Detected		
HAR-27	05/14/02	8260	Acetone	3.8 J,L/4.5 J,L*	0.9 U	
HAR-27	05/14/02	8260	Benzene	0.1 U/0.12 J*	0.2 U	
HAR-27	05/14/02	8260	cis-1,2-Dichloroethene	7.6/7.7*	8.6	12
HAR-27	05/14/02	8260	Ethylbenzene	0.099 U/0.42 J*	0.2 U	
HAR-27	05/14/02	8260	m,p-Xylenes	0.19 U/1.7*	0.3 U	
HAR-27	05/14/02	8260	o-Xylene	0.1 U/0.55 J*	0.1 U	
HAR-27	05/14/02	8260	Toluene	0.13 U/1.2*	0.3 U	
HAR-27	05/14/02	8260	trans-1,2-Dichloroethene	4.9/4.9*	4.9	0
HAR-27	05/14/02	8260	Trichloroethene	0.26 J/0.23 J*	0.3 U	
HAR-27	05/14/02	8260	Vinyl chloride	1.6/1.6*	1.2	29
RS-07	02/19/02	8260	cis-1,2-Dichloroethene	0.66 J/0.54 J*	0.3 U	
RS-07	02/19/02	8260	trans-1,2-Dichloroethene	0.15 J/0.2 J*	0.3 U	
Chatswort	th Formation 1	Vells				
HAR-23	08/29/02	8260	Toluene	0.26 J	0.3 U	
HAR-23	08/29/02	8260	Trichloroethene	1.1	0.3 U	
OS-16	10/31/02	8260	Acetone	3.7 U/4.3 J,S*	3 U	
RD-01	11/06/02	8260 SIM	1,4-Dioxane	0.32 U, J	1.6	
RD-02	11/06/02	8260 SIM	1,4-Dioxane	0.32 U,J /0.32 U,J*	1.4	
RD-04	11/06/02	8260	Acetone	4.8 J,L	3 U	
RD-04	11/06/02	8260	cis-1,2-Dichloroethene	15	12	22
RD-04	11/06/02	8260	trans-1,2-Dichloroethene	0.4 J	0.2 U	
RD-04	11/06/02	8260	Trichloroethene	46	45	2
RD-05B	05/09/02	8260	Methylene chloride	0.84 J,B,L/0.71 J,B,L*	2 U	
RD-05C	11/11/02	8260	Trichloroethene	0.13 U	12 S	
RD-13	02/25/02	8260	Trichloroethene	1.3/1.3*	1.2	NA
RD-13	05/03/02	8260	Toluene	0.23 J,V/0.14 J,V*	0.3 U	
RD-13	05/03/02	8260	Trichloroethene	1.8/1.8*	1.7	6
RD-24	02/25/02	8260	cis-1,2-Dichloroethene	0.14 U/0.77 J*	0.3 U	
RD-24	02/25/02	8260	Methylene chloride	0.85 J,B,L/3 J,B,L*	2 U	
RD-24	02/25/02	8260	Tetrachloroethene	1.4/1.4*	1.2	15
RD-24	02/25/02	8260	Trichloroethene	0.25 J/0.24 J*	0.3 U	

TABLE D-1 SUMMARY OF 2002 SPLIT SAMPLE RESULTS Boeing Santa Susana Field Laboratory Ventura County, California

Well ID	Date	Method	Constituent	Primary Lab	Split Lab	RPI
				Result (ug/l)	Result (ug/l)	
RD-55A	11/07/02	8260	1,1-Dichloroethene	44 U/22 U*	1.4	
RD-55A	11/07/02	8260	2-Butanone	1500 U/760 U*	16	
RD-55A	11/07/02	8260	4-Methyl-2-pentanone	680 U/340 U*	11	-
RD-55A	11/07/02	8260	Acetone	24000/26000*	36000	40
RD-55A	11/07/02	8260	cis-1,2-Dichloroethene	730/810*	770	5
RD-55A	11/07/02	8260	Tetrachloroethene	52 U/26 U*	5.6	
RD-55A	11/07/02	8260	Toluene	80 J,L/26 U*	0.2 U	
RD-55A	11/07/02	8260	trans-1,2-Dichloroethene	52 U/26 U*	17	
RD-55A	11/07/02	8260	Trichloroethene	780/830*	910	15
RD-55A	11/07/02	8260	Vinyl chloride	52 U/26 U*	42	
RD-58A	02/21/02	8270	Semi-volatile organics	None Detected		
RD-58B	02/18/02	8260	Acetone	1.8 U/1.8 J,L*	0.9 U	
RD-58B	02/18/02	8260	Chloromethane	0.16 J,B,L/0.14 U	0.4 U	
RD-58B	02/18/02	8270	Semi-volatile organics	None Detected		
RD-58B	08/12/02	8260	Volatile organics	None Detected	***	
RD-66	08/19/02	8260	Volatile organics	None Detected		
RD-69	08/29/02	8260	Volatile organics	None Detected		
RD-70	11/13/02	8260	Volatile organics	None Detected		
RD-71(Z10)	03/06/02	300.0/314.0	Perchlorate	None Detected		
RD-71	08/19/02	8260	Toluene	0.13 U/0.13 U*	0.47 J	
WS-04A	05/09/02	8260	Methylene chloride	0.79 J,B,L/0.36 J,B,L*	2 U	
WS-04A	05/09/02	8260	Toluene	0.13 U/0.13 J,V*	2 U	
WS-05	11/05/02	8260 SIM	1,4-Dioxane	5.86 J	2	NA
WS-09	11/06/02	8260	1,1-Dichloroethene	1.6/5.5 U*	1.7	6
WS-09	11/06/02	8260	cis-1,2-Dichloroethene	390/380*	350	11
WS-09	11/06/02	8260	Toluene	1/6.5 U*	1.3	26
WS-09	11/06/02	8260	trans-1,2-Dichloroethene	6.4/6.5 U*	6	6
WS-09	11/06/02	8260	Vinyl chloride	0.42 J/6.5 U*	0.2 U	
WS-09	11/06/02	8260	Trichloroethene	4600/4700*	4900	6
WS-09	11/06/02	8260 SIM	1,4-Dioxane	0.32 U,J	2.1	
WS-09A	08/09/02	8260	1,1-Dichloroethene	0.46 J	0.2 U	 7
WS-09A	08/09/02	8260	cis-1,2-Dichloroethene	150	140	7
WS-09A WS-09A	08/09/02 08/09/02	8260 8260	trans-1,2-Dichloroethene Trichloroethene	3.8 320	3.6 310	5 3
WS-09A WS-09A	08/09/02	8260 8260	Vinyl chloride	0.32 J	0.3 U	3

L	=	Laboratory contaminant.
S	=	Suspect result.
U	=	Not detected; numerical value represents the Method Detection Limit for that compound.
V	=	Possible VOA vial contaminant.
Z	=	FLUTe sample port number.

TABLE D-2 SUMMARY OF 2002 DUPLICATE SAMPLE RESULTS Boeing Santa Susana Field Laboratory Ventura County, California

RS-54 11/07/02 8260 1,1-Dichloroethene 1400 RS-54 11/07/02 8260 Chloroform 9.6 J Chatsworth Formation HAR-18 03/04/02 8260 1,1,1-Trichloroethane 28 HAR-18 03/04/02 8260 1,1,2-Trichloroethane 1.7 HAR-18 03/04/02 8260 1,1-Dichloroethane 17 HAR-18 03/04/02 8260 1,1-Dichloroethane 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	(ug/l) 1400 8.6 J 38 6.2 U 21 300 2.2 U 3.8 U 1100 ·	0 NA 30 21 NA
Chatsworth Formation HAR-18 03/04/02 8260 1,1,1-Trichloroethane 28 HAR-18 03/04/02 8260 1,1,2-Trichloroethane 1.7 HAR-18 03/04/02 8260 1,1-Dichloroethane 17 HAR-18 03/04/02 8260 1,1-Dichloroethene 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	38 6.2 U 21 300 2.2 U 3.8 U	30 — 21
HAR-18 03/04/02 8260 1,1,1-Trichloroethane 28 HAR-18 03/04/02 8260 1,1,2-Trichloroethane 1.7 HAR-18 03/04/02 8260 1,1-Dichloroethane 17 HAR-18 03/04/02 8260 1,1-Dichloroethane 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	6.2 U 21 300 2.2 U 3.8 U	<u> </u>
HAR-18 03/04/02 8260 1,1,2-Trichloroethane 1.7 HAR-18 03/04/02 8260 1,1-Dichloroethane 17 HAR-18 03/04/02 8260 1,1-Dichloroethene 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	6.2 U 21 300 2.2 U 3.8 U	<u> </u>
HAR-18 03/04/02 8260 1,1-Dichloroethane 17 HAR-18 03/04/02 8260 1,1-Dichloroethane 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	21 300 2.2 U 3.8 U	
HAR-18 03/04/02 8260 1,1-Dichloroethene 310 HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	300 2.2 U 3.8 U	
HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	2.2 U 3.8 U	NA —
HAR-18 03/04/02 8260 Benzene 0.28 J HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	3.8 U	_
HAR-18 03/04/02 8260 Chloroform 1.8 HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200	3.8 U	
HAR-18 03/04/02 8260 cis-1,2-Dichloroethene 1200		
		9
HAR-18 03/04/02 8260 Methylene chloride 0.38 J,B,L	4.4 U	
HAR-18 03/04/02 8260 Tetrachloroethene 2.2	3.2 U	
HAR-18 03/04/02 8260 trans-1,2-Dichloroethene 68	79	15
HAR-18 03/04/02 8260 Trichloroethene 4100	3900	5
HAR-18 03/04/02 8260 1,1,2-Trichloro-1,2,2-trifluoroethane 200	310	43
HAR-18 03/04/02 8260 Vinyl chloride 12	14	15
OS-16 03/12/02 8260 Volatile organics None Detected		
OS-16 08/23/02 300.0M Perchlorate None Detected		_
OS-16 10/31/02 8260 Acetone 3.7 U	4.3 J,S	
OS-17 08/28/02 300.0M Perchiorate None Detected		
OS-27 03/08/02 8260 Toluene 0.093 U	0.15 J, V	
RD-01 11/06/02 8260 cis-1,2-Dichloroethene 860	900	5
RD-01 11/06/02 8260 trans-1,2-Dichloroethene 30	35	15
RD-01 11/06/02 8260 Trichloroethene 1200	1200	0
RD-01 11/06/02 8260 Vinyl chloride 32	33	3
RD-02 11/06/02 8260 Volatile organics None Detected		
RD-05A 03/06/02 8260 Volatile organics None Detected		
RD-05A 03/06/02 8270 Semi-volatile organics None Detected	***	
RD-05B 05/09/02 8260 Methylene chloride 0.84 J,B,L	0.71 J,B,L	NA
RD-06 11/07/02 8260 Acetone 7.7 J,B	7.3 J	NA
RD-06 11/07/02 8260 Toluene 0.24 J,B,L	0.13 U	NA
RD-06 11/07/02 8260 Chloromethane 0.32 J	0.41 J	NA
RD-13 02/25/02 8260 Trichloroethene 1.3	1.3	0
RD-13 05/03/02 8260 Toluene 0.23 J,V	0.14 J,V	NA
RD-13 05/03/02 8260 Trichloroethene 1.8	1.8	0
RD-24 02/25/02 8260 cis-1,2-Dichloroethene 0.14 U	0.77 J	
RD-24 02/25/02 8260 Methylene chloride 0.85 J,B,L	3 J,B,L	NA
RD-24 02/25/02 8260 Tetrachloroethene 1.4	1.4	0
RD-24 02/25/02 8260 Trichloroethene 0.25 J	0.24 J	NA
RD-32 08/27/02 8260 Chloromethane 0.14 U	0.15 J	
RD-32 08/27/02 8260 Tetrachloroethene 0.13 U	0.19 J	
RD-33C 08/20/02 8260 Toluene 0.22 J,V	0.13 U	
RD-34C 08/28/02 8260 Chloromethane 0.19 J	0.14 U	
RD-35A 03/05/02 8260 1,1,1-Trichloroethane 230 J	170	NA
RD-35A 03/05/02 8260 1,1,-Dichloroethene 860	760	12
RD-35A 03/05/02 8260 cis-1,2-Dichloroethene 35 U	14 J	
RD-35A 03/05/02 8260 Trichloroethene 21000	15000	33
RD-35A 03/05/02 8260 1,1,2-Trichloro-1,2,2-trifluoroethane 660 J	480 J	NA

TABLE D-2 SUMMARY OF 2002 DUPLICATE SAMPLE RESULTS Boeing Santa Susana Field Laboratory Ventura County, California

		Method	Constituent	Primary Sample Result (ug/l)	Duplicate Sample Result (ug/l)	RPD	
RD-60	03/04/02	8260	1,1-Dichloroethane	3.6 J	3.2 J	NA	
RD-60	03/04/02	8260	1,1-Dichloroethene	1,1-Dichloroethene 3.6 J		NA	
RD-60	03/04/02	8260	1,2-Dichloroethane	17	14	19	
RD-60	03/04/02	8260	cis-1,2-Dichloroethene	13	13	0	
RD-60	03/04/02	8260	Ethylbenzene	1.8 J	0.9 U		
RD-60	03/04/02	8260	Methylene chloride	7.6 J	4.7 J	NA	
RD-60	03/04/02	8260	o-Xylene	1.4 J	0.7 U		
RD-60	03/04/02	8260	Trichloroethene	390	380	3	
RD-61	05/06/02	8260	Carbon Disulfide	0.52 U	1.2 J	_	
RD-66	08/19/02	8260	Volatile organics	None Detected		_	
RD-70	03/12/02	8260	Volatile organics	None Detected			
RD-70	05/09/02	8260	Methylene chloride	0.71 J,B,L	0.75 J,B,L	NA	
RD-70	11/13/02	8260	Volatile organics	None Detected			
RD-71	08/19/02	8260	Volatile organics	None Detected			
WS-04A	05/09/02	8260	Methylene chloride	0.79 J,B,L	0.36 J,B,L	NA	
WS-04A	05/09/02	8260	Toluene	0.13 U	0.13 J,V	_	
WS-04A	08/28/02	8260	Volatile organics	None Detected			
WS-09	02/19/02	8260	cis-1,2-Dichloroethene	6.1	6.4	5	
WS-09	02/19/02	8260	Methylene chloride	0.22 U	0.23 J,B,L		
WS-09	02/19/02	8260	trans-1,2-Dichloroethene	0.11 U	0.43 J		
WS-09	02/19/02	8260	Trichloroethene	55	61	10	
WS-09	11/06/02	8260	1,1-Dichloroethene	1.6 5.5 U			
WS-09	11/06/02	8260	cis-1,2-Dichloroethene	390	380	3	
WS-09	11/06/02	8260	Toluene	1	6.5 U		
WS-09	11/06/02	8260	trans-1,2-Dichloroethene	6.4	6.5 U		
WS-09	11/06/02	8260	Trichlorethene	4600	4700	2	
WS-09	11/06/02	8260	Vinyl chloride	0.42 J	6.5 U		

APPENDIX E

RESULTS OF RADIOLOGICAL ANALYSES



APPENDIX E RESULTS OF RADIOLOGICAL ANALYSES

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TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
Shallow Wells	 	<u></u>	·	<u> </u>			······································
ECL French-drain	Primary	12/12/91	5.73 ± 4.46	8.37 ± 3.08	Filtered		ΙΤ
SH-04	Primary	06/03/89	4.8 ± 6.9	6.8 ± 3.2	Unfiltered		BC
SH-04	Primary	07/22/89	4.0 ± 1.0	19.2 ± 2.4	Unfiltered, Decanted		BC
SH-04	Primary	09/09/89	8.0 ± 4.4	10.0 ± 1.3	Unfiltered		BC
SH-04	Primary	09/09/89	22.0 ± 5.4	13.0 ± 1.3	Filtered		BC
SH-04	Primary	03/18/93	7 ± 6	<3	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
SH-04	Primary	06/09/93	5 ± 4	8 ± 4	Filtered *	Gross alpha: high statistics due to large amount of solids.	CEP
SH-04	Primary	08/09/93	5 ± 4	<3	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
SH-04	Primary	11/04/93	1.1 ± 5.2	2.9 ± 6.5	Filtered		LAS
SH-04	Primary	05/06/94	3.5 ± 5.7	4.5 ± 6.7	Filtered		LAS
SH-07	Primary	06/03/89	185 ± 18.3	21.2 ± 3.1	Unfiltered		BC
SH-07	Primary	07/19/89	30.5 ± 3.3	21.2 ± 0.9	Unfiltered, Decanted		BC
SH-07	Primary	07/19/89	8.4 ± 2.0	3.8 ± 0.6	Filtered		BC
SH-07	Primary	09/09/89	5.9 ± 2.1	11.0 ± 0.5	Unfiltered		BC
SH-07	Primary	09/09/89	5.4 ± 1.4	3.2 ± 0.4	Filtered		BC
SH-11	Primary	06/03/89	281 ± 20.9	11.8 ± 3.6	Unfiltered	· ·	BC
SH-11	Primary	07/19/89	8.9 ± 2.5	8.1 ± 0.6	Unfiltered, Decanted		BC
SH-11	Primary	07/19/89	4.7 ± 1.8	5.6 ± 0.6	Filtered		BC
SH-11	Primary	09/09/89	5.9 ± 2.1	11.0 ± 0.5	Unfiltered		BC
SH-11	Primary	09/09/89	1.2 ± 1.7	5.6 ± 0.6	Filtered		BC
SH-11	Primary	10/17/89	5.23 ± 2.97	2.43 ± 1.68	Filtered		UST
SH-11	Primary	10/31/89	10.4 ± 6.06	6.96 ± 2.82	Unfiltered		UST
SH-11	Primary	10/31/89	9.57 ± 5.05	2.95 ± 2.45	Filtered		UST
RS-05	Primary	10/19/89	7.79 ± 3.55	3.17 ± 1.85	Filtered		UST
RS-05	Primary	10/31/89	37.2 ± 11.1	8.32 ± 3.01	Unfiltered		UST
RS-05	Primary	10/31/89	6.15 ± 4.71	5.30 ± 2.80	Filtered		UST
RS-06	Primary	06/03/89	16.3 ± 4.3	12.6 ± 0.8	Unfiltered		BC
RS-06	Primary	07/23/89	5.1 ± 2.1	14.7 ± 0.3	Unfiltered, Decanted		BC
RS-07	Primary	07/22/89	2.1 ± 0.9	7.7 ± 1.1	Unfiltered		BC
RS-07	Primary	09/11/89	2.0 ± 3.4	8.5 ± 1.2	Unfiltered		BC
RS-07	Primary	09/11/89	1.2 ± 2.1	5.5 ± 0.8	Filtered	•	BC
RS-08	Primary	06/04/89	12.4 ± 6.1	14.5 ± 1.1	Unfiltered		BC
RS-08	Primary	07/22/89	15.5 ± 1.5	17.1 ± 1.0	Unfiltered, Decanted		BC
RS-08	Primary	03/18/93	14 ± 9	5 ± 4	Filtered		CEP
RS-08	Primary	06/08/93	16 ± 7	13 ± 4	Filtered		CEP
RS-08	Primary	08/09/93	14 ± 5	7 ± 3	Filtered		CEP

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laborator
RS-18	Primary	03/04/92	3 ± 2	<3	Filtered		CEP
RS-18	Primary	06/04/92	14 ± 6	11 ± 3	Filtered		CEP
RS-18	Split	09/10/92	55 ± 20	40 ± 12	Filtered		BL
RS-18	Reanalysis of Primary	09/10/92	78 ± 24	50 ± 10	Filtered		BL
RS-18	Primary	09/10/92	21 ± 5	32 ± 5	Filtered		CEP
RS-18	Reanalysis of Primary	09/10/92	21 ± 6		Filtered		CEP
RS-18	Primary	12/15/92	13 ± 6	8 ± 4	Filtered		CEP
RS-18	Split	12/15/92	24 ± 14	19 ± 9	Filtered		В
RS-18	Primary	06/23/93	6 ± 5	14 ± 8	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RS-18	Primary	11/06/93	23.1 ± 9.3	14.1 ± 6.1	Filtered		LAS
RS-18	Primary	05/04/94	34 ± 12	5.1 ± 6.7	Filtered		LAS
RS-18	Primary	02/17/95	39 ± 10	31.4 ± 5.8	Filtered		LAS
RS-18	Reanalysis of Primary	02/17/95	14.2 ± 5.8	9.1 ± 3.4	Filtered		LAS
RS-18	Primary	08/10/95	13.3 ± 6.9	9.1 ± 5.5	Filtered		LAS
RS-18	Primary	05/16/96	26 ± 11	11.1 ± 7.4	Filtered		LAS
RS-18	Primary	02/03/97	20.6 ± 9.8	6.8 ± 6.2	Filtered		LAS
RS-18	Primary	02/05/98	15.2 ± 4.8	5.86 ± 1.8	Filtered		TN
RS-18	Primary	08/05/98	45.8 ± 8.1	13.7 ± 10	Filtered		TN
RS-18	Primary	05/12/99	26.9 ± 6.2	13.6 ± 2.1	Filtered		TN
RS-18	Primary	05/09/00	21.0 ± 6.3	11.6 ± 3.1	Filtered		TR
RS-18	Primary	02/19/01	4.38 ± 3.5	7.08 ± 1.7	Filtered		ES
RS-22	Primary	06/07/89	245 ± 29.4	227 ± 12.4	Unfiltered		BC
RS-22	Primary	07/22/89	1.9 ± 1.5	2.2 ± 0.3	Unfiltered, Decanted		BC
RS-27	Primary	03/04/92	<2	4 ± 3	Filtered		CEP
RS-27	Primary	06/04/92	-0.3 ± 1.5	2 ± 3	Filtered		CEP
RS-27	Primary	05/17/95	1.1 ± 1.2	3.7 ± 1.4	Filtered		LAS
RS-27	Primary	05/07/98	-0.216 ± 0.80	1.03 ± 1.2	Filtered		TN
RS-28	Primary	09/27/89	42.3 ± 7.5	49.5 ± 1.3	Unfiltered		BC
RS-28	Primary	09/27/89	7.5 ± 2.3	10.0 ± 0.8	Filtered		BC
RS-28	Primary	10/19/89	7.4 ± 3.2	11.7 ± 0.9	Filtered		BC
RS-28	Split	10/19/89	7.07 ± 3.03	3.53 ± 1.79	Filtered		UST
RS-28	Primary	11/01/89	7.38 ± 3.45	7.03 ± 2.94	Unfiltered		UST
RS-28	Primary	11/01/89	4.62 ± 2.59	4.76 ± 2.59	Filtered	•	UST
RS-28	Primary	03/27/90	5.68 ± 3.50	5.39 ± 2.60	Filtered		UST
RS-28	Primary	06/29/90	9.39 ± 4.83	5.24 ± 2.80	Filtered		UST
RS-28	Primary	09/15/90	9.85 ± 3.90	5.77 ± 2.72	Filtered		UST
RS-28	Duplicate	09/15/90	7.90 ± 4.00	6.97 ± 2.80	Filtered		UST
RS-28	Primary	12/06/90	8.72 ± 4.75	4.93 ± 2.55	Filtered		IT
RS-28	Primary	03/09/91	6.44 ± 3.16	3.32 ± 2.29	Filtered		IT
RS-28	Primary	06/07/91	7.18 ± 3.38	12.7 ± 3.45	Filtered		1T

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/I)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
S-24	Primary	03/03/89	7 ± 4	7 ± 5	Unfiltered		FGL
ES-24	Primary	06/03/89	10.7 ± 3.8	2.1 ± 0.7	Unfiltered		BC
ES-24	Primary	09/10/89	3.7 ± 2.5	9.2 ± 0.6	Unfiltered		BC
ES-24	Primary	09/10/89	1.0 ± 2.4	6.0 ± 0.6	Filtered		BC
ES-24	Duplicate	09/10/89	10.5 ± 1.9	7.1 ± 0.3	Unfiltered		BC
ES-24	Duplicate	09/10/89	5.9 ± 1.5	6.8 ± 0.3	Filtered		BC
ES-31	Primary	07/23/89	6.9 ± 2.2	6.7 ± 0.5	Unfiltered, Decanted		BC
ES-31	Primary	12/10/90	2.79 ± 2.10	2.09 ± 2.35	Filtered		IT
ES-31	Primary	03/04/91	0.899 ± 1.32	4.79 ± 2.55	Filtered		IT
ES-31	Duplicate	03/04/91	2.37 ± 1.73	2.98 ± 2.29	Filtered		ΙΤ
ES-31	Primary	06/06/91	9.12 ± 4.51	4.94 ± 2.59	Filtered		ΙT
ES-31	Duplicate	06/06/91	8.09 ± 4.90	4.99 ± 2.63	Filtered		IT
ES-31	Primary	12/07/91	7.57 ± 4.02	22.8 ± 3.64	Filtered		IT
ES-31	Primary	03/05/92	4 ± 2	<3	Filtered		CEP
ES-31	Primary	03/03/93	4 ± 3	6 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
ES-31	Primary	02/22/94	2 ± 3.1	4.3 ± 2.9	Filtered		LAS
ES-31	Primary	02/15/95	23.5 ± 6.5	20.9 ± 3.7	Filtered		LAS
ES-31	Reanalysis of Primary	02/15/95	22.5 ± 6.2	28.0 ± 3.8	Filtered		LAS
ES-31	Primary	02/06/96	2.4 ± 3.6	2.3 ± 2.8	Filtered		LAS
ES-31	Primary	02/04/97	9.9 ± 5.1	3.5 ± 3.1	Filtered		LAS
ES-31	Primary	02/04/98	11.5 ± 3.7	5.09 ± 2.0	Filtered		TN
ES-31	Primary	02/06/99	6.85 ± 3.3	4.33 ± 2.7	Filtered		TN
ES-31	Primary	02/06/00	4.36 ± 2.6	4.79 ± 3.2	Filtered		TR
ES-31	Primary	02/15/01	3.16 ± 2.3	4.41 ± 1.8			
ES-31	Primary	02/18/02	10.49 ± 3.59	2.79 ± 1.76	Filtered		DL
HAR-03	Primary	09/11/89	19.0 ± 2.5	13.0 ± 0.6	Unfiltered		BC
HAR-03	Primary	09/11/89	5.0 ± 1.7	2.0 ± 0.5	Filtered		BC
HAR-04	Primary	06/02/89	20.7 ± 3.4	19.7 ± 0.9	Unfiltered		ВС
HAR-04	Primary	07/23/89	1.7 ± 1.3	1.1 ± 0.3	Unfiltered, Decanted		BC
HAR-04	Primary	09/11/89	8.9 ± 1.6	8.9 ± 0.5	Unfiltered		BC
HAR-04	Primary	09/11/89	1.6 ± 0.8	3.1 ± 0.2	Filtered		BC
HAR-11	Primary	06/02/89	92.5 ± 14.7	80.6 ± 3.1	Unfiltered		ВС
HAR-11	Primary	07/22/89	4.9 ± 1.1	12.8 ± 0.9	Unfiltered, Decanted		BC
1AR-14	Primary	06/02/89	34.0 ± 5.7	47.4 ± 1.4	Unfiltered		BC
1AR-14	Primary	07/22/89	11.9 ± 2.3	8.2 ± 0.5	Unfiltered, Decanted		BC
HAR-14	Primary	09/12/89	9.2 ± 1.0	9.0 ± 0.2	Unfiltered		BC
HAR-14	Split	09/12/89	-1.0 ± 2.0	9.7 ± 0.8	Filtered		BC
HAR-14	Split	09/12/89	0 ± 3	14 ± 6	Unfiltered		TMA
HAR-14	Split	09/12/89	1 ± 5	3 ± 5	Filtered		TMA
HAR-14	Primary	03/16/93	5 ± 3	5 ± 4	Filtered		CEP

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/I)	Gross Beta (pCi/I)	Sample Handling	Sample Comment	Laboratory
RD-05B	Primary	09/10/89	2.0 ± 1.5	10.0 ± 0.3	Unfiltered		BC
RD-05B	Primary	09/10/89	3.5 ± 1.5	7.3 ± 0.3	Filtered		BC
RD-05B	Primary	03/16/93	<2	<3	Filtered		CEP
RD-05B	Primary	06/07/93	10 ± 4	21 ± 4	Filtered		CEP
RD-05B	Primary	08/09/93	8 ± 3	13 ± 3	Filtered		CEP
RD-05B	Primary	11/22/93	3.0 ± 4.7	5.4 ± 4.3	Filtered		LAS
RD-06	Primary	06/07/89	7.3 ± 2.2	7.5 ± 0.6	Unfiltered		ВС
RD-06	Primary	07/22/89	18.1 ± 2.9	11.3 ± 0.8	Unfiltered, Decanted		ВС
RD-06	Primary	09/10/89	4.0 ± 1.6	5.7 ± 0.3	Unfiltered		ВС
RD-06	Primary	09/10/89	3.2 ± 1.3	7.5 ± 0.4	Filtered		BC
RD-06	Primary	10/18/89	2.10 ± 1.98	5.16 ± 1.99	Filtered		UST
RD-06	Primary	10/31/89	4.9 ± 3.98	6.03 ± 2.77	Unfiltered		UST
RD-06	Primary	10/31/89	3.11 ± 2.42	6.22 ± 2.79	Filtered		UST
RD-06	Primary	03/06/91	9.99 ± 5.83	3.58 ± 2.32	Filtered		IT
RD-06	Primary	03/10/92	<2	<3	Filtered		CEP
RD-06	Primary	03/16/93	4 ± 3	7±4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-06	Primary	06/07/93	3 ± 2	8 ± 7	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-06	Primary	08/09/93	5 ± 3	4 ± 3	Filtered		CEP
RD-06	Primary	11/22/93	1.5 ± 4.1	5.5 ± 4.6	Filtered		LAS
RD-07	Primary	06/04/89	11.5 ± 5.0	8.1 ± 1.0	Unfiltered		BC
RD-07	Primary	07/22/89	6.6 ± 1.5	5.3 ± 0.5	Unfiltered, Decanted		BC
RD-07	Primary	09/13/89	8.0 ± 2.6	13.6 ± 0.9	Unfiltered		BC
RD-07	Primary	09/13/89	2.6 ± 1.8	9.9 ± 0.7	Filtered		BC
RD-07	Primary	12/05/90	7.19 ± 3.19	6.66 ± 2.72	Filtered		IT
RD-07	Primary	03/09/91	5.70 ± 2.67	3.63 ± 2.42	Filtered		ΙT
RD-07	Primary	12/07/91	7.42 ± 3.19	5.06 ± 1.61	Filtered		IT
RD-07	Primary	03/06/92	<2	6 ± 4	Filtered		CEP
RD-07	Primary	03/07/93	3 ± 2	5 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-07	Primary	02/27/94	6.4 ± 3.7	4.7 ± 2.7	Filtered		LAS
RD-07	Primary	08/09/94	6.1 ± 3.5	5.4 ± 2.8	Filtered		LAS
RD-07	Primary	02/09/95	3.4 ± 3.3	5.9 ± 3.2	Filtered		LAS
RD-07	Duplicate	02/09/95	10.8 ± 5.1	6.6 ± 3.5	Filtered	•	LAS
RD-07	Primary	08/04/95	6.6 ± 3.6	7.5 ± 2.8	Filtered		LAS
RD-07	Primary	02/07/96	12.2 ± 4.5	3.1 ± 1.9	Filtered		LAS
RD-07	Primary	08/18/96	8.7 ± 4.5	6.5 ± 3 2	Filtered		LAS
RD-07	Primary	02/25/97	9.5 ± 3.9	5.9 ± 2.4	Filtered		LAS
RD-07	Primary	08/25/97	12.5 ± 5.6	8.1 ± 4.3	Filtered		LAS
RD-07	Primary	02/05/98	10.3 ± 2.8	8.27 ± 1.7	Filtered		TN

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-14	Primary	10/31/89	5.27 ± 2.62	5.01 ± 2.62	Filtered		UST
RD-14	Primary	12/07/90	6.29 ± 3.02	6.69 ± 2.80	Filtered		IT
RD-14	Primary	03/09/91	9.44 ± 4.63	5.36 ± 2.53	Filtered		IT
RD-14	Primary	12/06/91	5.92 ± 3.40	7.66 ± 2,22	Filtered		IT
RD-14	Primary	03/05/92	3 ± 2	<3	Filtered		CEP
RD-14	Primary	03/07/93	4±3	<3	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-14	Primary	02/24/94	1.8 ± 3	0.8 ± 3.2	Filtered		LAS
RD-14	Primary	02/08/95	5.4 ± 4.4	5.7 ± 3.5	Filtered		LAS
RD-14	Primary	02/16/96	4.4 ± 3.4	5.4 ± 2.2	Filtered		LAS
RD-14	Primary	02/07/97	3.7 ± 3.6	7.7 ± 3.3	Filtered		LAS
RD-15	Primary	08/30/89	8.0 ± 2.5	5.0 ± 0.89	Unfiltered		BC
RD-15	Primary	08/30/89	6.0 ± 2.62	12.0 ± 0.89	Filtered		BC
RD-15	Primary	10/19/89	12.5 ± 2.7	10.7 ± 1.0	Filtered		BC
RD-15	Primary	12/07/90	5.82 ± 2.76	6.45 ± 2.77	Filtered		IT
RD-15	Primary	03/10/91	9.29 ± 3.41	8.99 ± 3.05	Filtered	•	IT
RD-15	Primary	12/06/91	12.3 ± 5.11	9.19 ± 2.48	Filtered	,	IT
RD-15	Primary	03/11/92	3 ± 2	7 ± 3	Filtered		CEP
RD-15	Split	03/11/92	7.7 ± 5.7	14 ± 3	Filtered		TEL
RD-15	Primary	05/10/01	2.02 ± 2.4	3.68 ± 3.0	Filtered		ES
RD-15	Primary	03/06/02	7.84 ± 3.91	4.77 ± 1.32	Filtered		DL
RD-16	Primary	09/14/89	15.3 ± 3.7	5.9 ± 1.8	Unfiltered		BC
RD-16	Primary	09/14/89	4.1 ± 2.0	6.6 ± 1.0	Filtered		BC
RD-16	Primary	10/25/89	6.4 ± 2.3	9.2 ± 0.6	Filtered		BC
RD-16	Primary	07/01/90	1.92 ± 2.37	6.35 ± 2.87	Filtered		UST
RD-16	Primary	12/07/90	4.88 ± 2.54	6.39 ± 2.72	Filtered		ΙΤ
RD-16	Primary	03/09/91	6.12 ± 2.82	4.20 ± 2.51	Filtered		IT
RD-16	Primary	12/05/91	3.00 ± 2.27	6.38 ± 1.93	Filtered		IT
RD-16	Primary	06/06/92	2±2	-2 ± 3	Filtered		CEP
RD-16	Primary	05/27/98	4.72 ± 2.4	7.56 ± 1.7	Filtered		TN
RD-17	Primary	09/21/89	9.4 ± 2.1	8.3 ± 1.1	Unfiltered		BC
RD-17	Primary	09/21/89	1.7 ± 1.6	8.5 ± 0.8	Filtered	•	BC
RD-17	Primary	10/18/89	-1.0 ± 1.5	5.6 ± 0.5	Filtered		BC
RD-17	Duplicate	10/18/89	2.8 ± 2.0	5.7 ± 0.5	Filtered		BC
D-17	Primary	12/04/90	4.50 ± 2.87	1.63 ± 2.22	Filtered	•	IT
D-17	Primary	03/05/91	4.22 ± 2.27	1.69 ± 0.994	Filtered		IT
RD-17	Split	12/07/91	<2	<3	Filtered		CEP
RD-17	Primary	12/07/91	2.42 ± 1.81	4.94 ± 1.63	Filtered		IT.
RD-17	Primary	03/04/92	<2	<3	Filtered		CEP
RD-17	Primary	03/05/93	3±2	4 ± 3	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/I)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
₹D-19	Duplicate	03/08/93	5 ± 4	13 ± 4	Filtered	Gross alpha and beta high statistics due	CEP
						to large amount of solids.	
RD-19	Primary	02/26/94	18 ± 9.2	17,5 ± 5.4	Filtered		LAS
RD-19	Reanalysis of Primary	02/26/94	21 ± 10	32.1 ± 8.9	Filtered		LAS
RD-19	Primary	02/15/95	100 ± 22	50.2 ± 9.8	Filtered		LAS
RD-19	Reanalysis of Primary	02/15/95	13.3 ± 8.7	34.6 ± 7.0	Filtered		LAS
RD-19	Primary	02/06/96	36 ± 12	29.8 ± 7.1	Filtered		LAS
RD-19	Reanalysis of Primary	02/06/96	6.9 ± 5.0	3.6 ± 2.8	Filtered		LAS
RD-19	Primary	02/07/97	27 ± 10	17.3 ± 5.7	Filtered		LAS
RD-19	Primary	02/06/98	25.6 ± 5.7	18.6 ± 2.5	Filtered		TN
RD-20	Primary	09/05/89	14.4 ± 2.4	34.1 ± 0.8	Unfiltered		BC
RD-20	Primary	09/05/89	10.0 ± 2.3	16.7 ± 0.7	Filtered		BC
RD-20	Primary	10/17/89	13.1 ± 3.3	17.06 ± 1.0	Filtered		BC
RD-20	Primary	12/07/90	4.74 ± 2.36	2.49 ± 2.30	Filtered		IT
RD-20	Primary	03/05/91	4.07 ± 2.23	5.29 ± 1.39	Filtered		IT
RD-20	Primary	12/10/91	4.43 ± 3.96	9.08 ± 3.07	Filtered		ΙΤ
RD-20	Primary	03/04/92	4 ± 3	5 ± 3	Filtered	•	CEP
RD-20	Primary	03/03/93	6 ± 5	10 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-20	Primary	02/22/94	5 ± 6.4	8.3 ± 6.9	Filtered		LAS
RD-20	Primary	02/16/95	35 ± 11	36.3 ± 6.9	Filtered		LAS
RD-20	Reanalysis of Primary	02/16/95	10.1 ± 6.0	9.6 ± 6.0	Filtered		LAS
RD-20	Duplicate	02/16/95	46 ± 12	35.4 ± 6.7	Filtered		LAS
RD-20	Reanalysis of Duplicate	02/16/95	6.5 ± 5.5	10.3 ± 6.9	Filtered	_	LAS
RD-20	Primary	02/04/96	6.5 ± 6.9	4.7 ± 4.2	Filtered	•	LAS
RD-20	Primary	02/08/97	14.4 ± 6.9	5.8 ± 3.9	Filtered		LAS
RD-20	Primary	02/04/98	8.04 ± 3.6	8.24 ± 2.0	Filtered		TN
RD-21	Primary	09/12/89	6.5 ± 2.2	5.5 ± 1.1	Unfiltered		BC
RD-21	Primary	09/12/89	6.0 ± 2.0	-0.5 ± 1.0	Filtered		BC
RD-21	Primary	10/20/89	7.7 ± 2.6	10.8 ± 0.9	Filtered		BC
RD-21	Duplicate	10/20/89	12.3 ± 3.0	3.1 ± 1.0	Filtered		BC
RD-21	Primary	12/03/90	2.91 ± 2.53	1.85 ± 2.34	Filtered		IT
RD-21	Primary	03/08/91	7.80 ± 4.84	5.85 ± 2.62	Filtered		IT
RD-21	Primary	12/05/91	7.59 ± 3.74	6.37 ± 2.11	Filtered		IT
RD-21	Primary	03/04/92	5 ± 2	5 ± 4	Filtered	•	CEP
RD-21	Primary	03/06/93	3 ± 2	<3	Filtered		CEP
RD-21	Primary	06/22/93	13 ± 4	37 ± 5	Filtered		CEP
RD-21	Primary	08/06/93	3 ± 2	<3	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-21	Primary	11/06/93	4.1 ± 3.0	6.5 ± 3.5	Filtered		LAS

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/I)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-22	Primary	02/16/01	3.64 ± 3.3	8.59 ± 1.7	Filtered		ES
RD-22	Primary	02/20/02	9.21 ± 3.56	4.79 ± 9.21	Filtered		DL
RD-23	Primary	09/13/89	8.6 ± 2.4	7.4 ± 1.2	Unfiltered		BC
RD-23	Primary	09/13/89	8.2 ± 2.3	-0.5 ± 1.2	Filtered		BC
RD-23	Primary	10/20/89	9.4 ± 3.0	6.5 ± 0.9	Filtered		BC
RD-23	Primary	06/29/90	0.58 ± 2.12	1.73 ± 2.18	Filtered		UST
RD-23	Primary	12/05/90	1,28 ± 1.52	2.27 ± 2.26	Filtered		IT
RD-23	Primary	03/11/91	3.30 ± 1.94	0.626 ± 1.89	Filtered		IT
RD-23	Duplicate	03/11/91	1.61 ± 1.34	3.98 ± 2.41	Filtered		IT
RD-23	Primary	12/05/91	3.80 ± 2.08	5.50 ± 1.50	Filtered		IT
RD-23	Primary	03/04/92	<2	<3	Filtered		CEP
RD-23	Primary	03/21/93	<2	9 ± 2	Filtered		CEP
RD-23	Primary	06/23/93	<2	6 ± 4	Filtered		CEP
RD-23	Primary	08/06/93	<2	<3	Filtered		CEP
RD-23	Primary	11/06/93	2.9 ± 2.5	3.3 ± 2.4	Filtered		LAS
RD-23	Primary	02/25/94	3.1 ± 2.8	3.9 ± 2.8	Filtered		LAS
RD-23	Primary	08/08/94	2.5 ± 2.7	5.7 ± 2.7	Filtered		LAS
RD-23	Primary	11/22/94	4.4 ± 2.8	4.5 ± 2.0	Filtered		LAS
RD-23	Primary	02/05/95	3.1 ± 3.1	8.4 ± 3.3	Filtered		LAS
RD-23	Primary	08/03/95	4.1 ± 3.2	7.2 ± 3.1	Filtered		LAS
RD-23	Primary	02/16/96	3.6 ± 2.7	4.0 ± 1.8	Filtered		LAS
RD-23	Primary	08/18/96	2.9 ± 2.8	3.9 ± 2.5	Filtered		LAS
RD-23	Primary	02/27/97	6.4 ± 3.1	3.8 ± 1.9	Filtered		LAS
RD-23	Primary	02/07/98	4.11 ± 1.7	4.93 ± 1.4	Filtered		TN
RD-23	Primary	02/08/99	4.69 ± 2.1	4.64 ± 1.5	Filtered		TN
RD-23	Primary	02/05/00	4.69 ± 2.3	5.26 ± 2.6	Filtered		TR
RD-23	Primary	10/25/01	4.89 ± 2.43	2.42 ± 1.12	Filtered		DL
RD-23	Primary	10/25/01	3.05 ± 1.94	3.66 ± 1.29	Filtered		DL
RD-24	Primary	09/12/89	8.6 ± 1.6	14.0 ± 0.6	Unfiltered		BC
RD-24	Primary	09/12/89	4.3 ± 1.0	7.4 ± 0.2	Filtered		BC
RD-24	Split	09/12/89	3 ± 2	6 ± 2	Unfiltered		TMA
RD-24	Split	09/12/89	2 ± 3	7 ± 2	Filtered		TMA
RD-24	Primary	10/17/89	2.4 ± 2.3	7.3 ± 0.5	Filtered		BC
RD-24	Primary	12/05/90	6.15 ± 3.65	6.12 ± 2.81	Filtered	_	ΙΤ
RD-24	Primary	03/06/91	5,46 ± 2.99	3.68 ± 1.86	Filtered	•	IT
RD-24	Primary	12/11/91	6.33 ± 3.50	5.21 ± 1.84	Filtered		IT
RD-24 ·	Primary	03/06/92	3 ± 2	<3	Filtered		CEP
RD-24	Primary	03/07/93	3 ± 2	7 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-24	Primary	02/23/94	7.6 ± 4.4	7 ± 3.3	Filtered		LAS
RD-24	Primary	08/08/94	3.0 ± 2.7	6.9 ± 2.7	Filtered		LAS

TABLE E-1
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Ventura County, California

Well Identifier	Sample Type	Date	Gross Alpha	Gross Beta	Sample	Sample Comment	Laboratory
		Sampled	(pCi/I)	(pCi/I)	Handling	- Compression	
RD-25	Primary	02/05/98	12.2 ± 3.8	7.55 ± 2.1	Filtered		TN
RD-25	Primary	08/18/98	3.13 ± 1.2	6.01 ± 1.5	Filtered		TN
RD-25	Primary	02/16/99	18.3 ± 5.2	9.37 ± 2.1	Filtered		TN
RD-25	Primary	08/19/99	2.96 ± 1.7	5.74 ± 1.7	Filtered		TN
RD-25	Primary	02/16/00	5.66 ± 3.1	3.64 ± 4.3	Filtered		TR
RD-25	'Primary	08/09/00	0.815 ± 1.5	5.33 ± 1.7	Filtered		TR
RD-25	Primary	02/07/01	4.60 ± 2.6	12.5 ± 2.2	Filtered		ES
RD-25	Primary	10/25/01	12.22 ± 4.97	6.17 ± 1.49	Filtered		DL
RD-25	Primary	03/07/02	6.00 ± 3.25	4.53 ± 1.37	Filtered		DL
RD-25	Primary	11/06/02	9.90 ± 3.6	7.83 ± 1.8	Filtered		ES
RD-26	Primary	09/26/89	11.8 ± 1.9	10.8 ± 0.7	Unfiltered		BC
RD-26	Primary	09/26/89	7.1 ± 1.5	9.2 ± 0.6	Filtered		BC
RD-26	Primary	10/20/89	8.9 ± 2.9	11.9 ± 0.8	Filtered		BC
RD-26	Primary	12/04/90	7.20 ± 4.33	2.90 ± 2.39	Filtered		ır ·
RD-26	Primary	03/07/91	12.9 ± 4.75	4.63 ± 2.54	Filtered		IT
RD-26	Primary	03/11/92	<2	<3	Filtered		CEP
RD-27	Primary	09/21/89	21.0 ± 2.8	13.1 ± 1.4	Unfiltered		BC
RD-27	Primary	09/21/89	13.7 ± 2.4	5.7 ± 1.3	Filtered		BC
RD-27	Primary	10/19/89	10.3 ± 2.8	9.6 ± 0.7	Filtered		BC
RD-27	Primary	12/04/90	6.79 ± 3.45	3.39 ± 2.43	Filtered		· IT
RD-27	Primary	03/07/91	15.2 ± 10.3	7.91 ± 2.82	Filtered		ΙΤ
RD-27	Primary	06/08/91	5.75 ± 2.66	2.53 ± 1.18	Filtered		iΤ
RD-27	Primary	12/06/91	5.65 ± 2.67	9.70 ± 1.94	Filtered		ΙΤ
RD-27	Primary	03/09/92	<2	<3	Filtered		CEP
RD-27	Primary	03/08/93	5 ± 3	11 ± 4	Filtered		CEP
RD-27	Primary	02/28/94	5.8 ± 3	8.2 ± 2.6	Filtered	•	LAS
RD-27	Primary	08/18/94	3.6 ± 3.0	9.0 ± 2.9	Filtered		LAS
RD-27	Primary	02/17/95	23.7 ± 5.7	21.2 ± 3.0	Filtered		LAS
RD-27	Reanalysis of Primary	02/17/95	3.8 ± 2.6	9.5 ± 2.5	Filtered	•	LAS
RD-27	Primary	08/18/95	5.2 ± 2.9	6.4 ± 2.2	Filtered		LAS
RD-27	Primary	02/05/96	4.7 ± 3.1	8.4 ± 2.3	Filtered		LAS
RD-27	Primary	08/19/96	2.3 ± 2.7	6.7 ± 2.7	Filtered		LAS
RD-27	Primary	02/05/97	5.8 ± 3.1	8.4 ± 2.3	Filtered		LAS
RD-27	Primary	08/27/97	4.2 ± 3.5	5.2 ± 3.1	Filtered		LAS
RD-27	Primary	02/04/98	6.68 ± 2.2	8.62 ± 1.7	Filtered	•	TN
RD-27	Primary	08/07/98	8.47 ± 8.3	-19.0 ± 20	Filtered		TN
RD-27	Primary	02/16/99	4.86 ± 2.2	6.31 ± 1.9	Filtered		TN
RD-27	Primary	08/17/99	5.30 ± 1.9	6.66 ± 1.8	Filtered		TN
RD-27	Primary	02/21/00	4.92 ± 2.8	6.16 ± 4.1	Filtered		TR
RD-27	Primary	08/04/00	3.15 ± 2.0	4.88 ± 2.1	Filtered		TR
RD-27	Primary	02/14/01	4.27 ± 1.9	8.48 ± 4.1	Filtered		ES

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-29	Primary	09/20/89	-1.0 ± 0.9	22.3 ± 0.4	Unfiltered		BC
RD-29	Primary	09/20/89	29.9 ± 3.0	37.3 ± 1.5	Filtered		BC
RD-29	Duplicate	09/20/89	36.5 ± 3.0	35.2 ± 1.6	Unfiltered		BC
RD-29	Duplicate	09/20/89	30.0 ± 3.0	35.0 ± 1.5	Filtered		BC
RD-29	Primary	10/18/89	20.9 ± 3.3	8.7 ± 1.1	Filtered		BC
RD-29	Primary	12/08/89	22.6 ± 6.21	6.55 ± 2.80	Unfiltered		UST
RD-29	Primary	12/08/89	18.6 ± 5.36	7.12 ± 2.86	Filtered		UST
RD-29	Primary	03/27/90	20.1 ± 7.35	9.85 ± 3.17	Filtered		UST
RD-29	Primary	06/30/90	15.3 ± 6.63	11.7 ± 3.28	Filtered		UST
RD-29	Primary	09/15/90	28.7 ± 8.06	5.10 ± 2.59	Filtered		UST
RD-29	Primary	12/06/90	11.9 ± 4.93	5.61 ± 2.69	Filtered		IT
RD-29	Duplicate	12/06/90	13.3 ± 4.83	7.19 ± 2.84	Filtered		IT
RD-29	Primary	03/05/91	29.1 ± 8.42	3.98 ± 1.24	Filtered		IT
RD-29	Primary	06/05/91	7.06 ± 2.99	4.51 ± 2.55	Filtered		ΙΤ
RD-29	Duplicate	06/05/91	7.00 ± 4.46	12,9 ± 3,47	Filtered		IT
RD-29	Split	12/10/91	<2	<3	Filtered		CEP
RD-29	Primary	12/10/91	17.9 ± 6.42	12.5 ± 2.82	Filtered		ΙΤ
RD-29	Primary	03/03/92	3 ± 2	5 ± 3	Filtered		CEP
RD-29	Primary	06/03/92	4 ± 2	1 ± 3	Filtered		CEP
RD-29	Primary	09/10/92	10 ± 3	21 ± 5	Filtered		CEP
RD-29	Primary	12/05/92	9 ± 3	12 ± 3	Filtered		CEP
RD-29	Primary	03/05/93	4 ± 3	7 ± 4	Filtered	Gross alpha: high statistics to large amount of solids.	CEP
RD-29	Primary	08/08/93	3 ± 2	4 ± 3	Filtered	Gross alpha: high statistics to large amount of solids.	CEP
RD-29	Primary	02/26/94	7.8 ± 4.8	8.1 ± 3.6	Filtered		LAS
RD-29	Primary	08/17/94	17.1 ± 6.5	8.3 ± 4.5	Filtered		LAS
RD-29	Primary	05/09/01	2.15 ± 2.8	3.99 ± 3.2	Filtered		ES
RD-29	Primary	05/03/02	22.79 ± 6.44	5.31 ± 1.15	Filtered		DL
RD-30	Primary	09/22/89	22.8 ± 2.7	38.4 ± 1.3	Unfiltered		BC
RD-30	Primary	09/22/89	17.4 ± 2.4	33.2 ± 1.2	Filtered		BC
RD-30	Primary	10/19/89	8.5 ± 2.8	8.1 ± 0.8	Filtered		вс
RD-30	Primary	03/27/90	3.19 ± 2.74	5.19 ± 2.66	Filtered		UST
RD-30	Primary	06/29/90	5.24 ± 4.33	3.18 ± 2.42	Filtered		UST
RD-30	Primary	09/15/90	2.63 ± 2.15	4.88 ± 2.61	Filtered	•	UST
RD-30	Primary	12/06/90	4.71 ± 2.42	3.18 ± 2.46	Filtered		IT
RD-30	Primary	03/09/91	8.58 ± 4.74	6.12 ± 2.68	Filtered		ΙΤ
RD-30	Primary	12/06/91	11.9 ± 4.99	7.03 ± 2.24	Filtered		ΙΤ
RD-30	Primary	06/03/92	4 ± 2	1 ± 3	Filtered		CEP
RD-30	Split	06/03/92	10 ± 5	9.9 ± 2.7	Filtered		TEL
RD-30	Primary	03/21/93	<2	14 ± 3	Filtered		CEP

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-33A	Primary	02/25/97	7.6 ± 3.2	4.2 ± 1.8	Filtered		LAS
RD-33A	Primary	08/27/97	1.2 ± 2.2	8.6 ± 3.4	Filtered		LAS
RD-33A	Primary	05/27/98	7.38 ± 2.3	5.67 ± 1.8	Filtered		TN
RD-33A	Primary	08/17/98	1.50 ± 0.76	4.71 ± 1.4	Filtered		TN
RD-33A	Primary	02/03/99	3.16 ± 1.4	4.87 ± 1.7	Filtered		TN
RD-33A	Primary	02/09/00	5.26 ± 2.2	5.35 ± 2.2	Filtered		TR
RD-33A	Primary	05/14/01	1.70 ± 1.5	6.32 ± 1.5	Filtered		ES
RD-33A	Primary	02/15/02	3.13 ± 1.79	6.36 ± 1.55	Filtered		DL
RD-33B	Split	12/12/91	<2	<3	Filtered		CEP
RD-33B	Primary	12/12/91	2.87 ± 2.16	7.53 ± 1.92	Filtered		IT
RD-33B	Primary	06/24/92	1 ± 2	3 ± 3	Filtered		CEP
RD-338	Primary	09/15/92	0.1 ± 1.3	0.3 ± 3.0	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-33B	Primary	12/05/92	<2	9 ± 3	Filtered		CEP
RD-33B	Primary	06/24/93	<2	<3	Filtered		CEP
RD-33B	Primary	08/24/93	2±1	4 ± 3	Filtered		CEP
RD-33B	Primary	11/17/93	1.1 ± 1.3	5.3 ± 1.6	Filtered		LAS
RD-33B	Primary	02/27/94	0.8 ± 1.8	4.9 ± 2	Filtered		LAS
RD-33B	Primary	08/18/94	0.7 ± 2.0	5.4 ± 3.0	Filtered		LAS
RD-33B	Primary	02/07/95	0 ± 1.8	5.7 ± 2.4	Filtered		LAS
RD-33B	Primary	08/09/95	1.5 ± 1.8	4.9 ± 1.9	Filtered		LAS
RD-33B	Primary	02/19/96	2.6 ± 2.4	4.5 ± 2.3	Filtered		LAS
RD-33B	Primary	08/23/96	-0.5 ± 1.5	6.8 ± 2.5	Filtered		LAS
RD-33B	Primary	02/25/97	1.2 ± 2.0	4.4 ± 1.7	Filtered		LAS
RD-33B	Primary	08/22/97	2.5 ± 2.2	5.8 ± 2.4	Filtered		LAS
RD-33B	Primary	05/27/98	1.44 ± 1.5	6.50 ± 1.5	Filtered		TN
RD-33B	Primary	08/17/98	0.004 ± 0.34	4.31 ± 1.5	Filtered		TN
RD-33B	Primary	02/03/99	1.86 ± 1.4	3.80 ± 1.4	Filtered		TN
RD-33B	Primary	02/09/00	2.31 ± 1.8	5.24 ± 3.2	Filtered		TR
RD-33B	Primary	02/17/01	1.73 ± 1.6	4.68 ± 1.7	Filtered		ES
RD-33B	Primary	02/15/02	3.19 ± 2.09	2.78 ± 1.31	Filtered	•	DL
RD-33C	Split	12/12/91	-6	2 ± 4	Filtered		CEP
RD-33C	Primary	12/05/91	4.19 ± 2.34	7.42 ± 1.79	Filtered		ΙΤ
RD-33C	Primary	12/12/91	1.91 ± 1.82	6.15 ± 1.75	Filtered		IT
RD-33C	Primary	06/08/92	1 ± 1	-3 ± 3	Filtered	•	CEP
RD-33C	Primary	09/15/92	2 ± 2	2 ± 3	Filtered		CEP
RD-33C	Primary	12/05/92	<2	4 ± 3	Filtered		CEP
RD-33C	Primary	06/24/93	2 ± 1	7 ± 3	Filtered		CEP
RD-33C	Primary	08/24/93	2 ± 1	8 ± 3	Filtered		CEP
RD-33C	Primary	11/17/93	2.3 ± 2.6	5.8 ± 2.5	Filtered		LAS
RD-33C	Primary	02/27/94	0.3 ± 2.2	6.4 ± 2.3	Filtered		LAS

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-348	Primary	12/05/91	3.76 ± 2.43	5.52 ± 1.86	Filtered		IT
RD-34B	Primary	03/10/92	<2	4±3	Filtered		CEP
RD-34B	Split	03/10/92	<6	9.5 ± 3.1	Filtered		TEL
RD-34B	Primary	06/08/92	1±2	-2 ± 3	Filtered		CEP
RD-34B	Split	09/13/92	9.7 ± 6.8	17 ± 7	Filtered		BL.
RD-34B	Primary	09/13/92	3 ± 2	8 ± 4	Filtered		CEP
RD-34B	Primary	12/05/92	<2	4 ± 3	Filtered		CEP
RD-34B	Primary	03/09/93	9±4	13 ± 4	Filtered		CEP
RD-34B	Primary	06/23/93	3±2	13 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
RD-34B	Primary	08/24/93	<2	6 ± 3	Filtered		CEP
RD-34B	Primary	11/18/93	0.2 ± 2.3	8.5 ± 3.8	Filtered		LAS
RD-34B	Primary	02/26/94	1 ± 2.5	5.8 ± 2.6	Filtered		LAS
RD-34B	Primary	08/09/94	4.9 ± 3.7	7.0 ± 3.4	Filtered		LAS
RD-34B	Primary	02/07/95	0.5 ± 2.3	5.4 ± 2.8	Filtered		LAS
RD-34B	Primary	08/09/95	2.7 ± 3.1	11.2 ± 3.7	Filtered		LAS
RD-348	Primary	02/19/96	5.2 ± 3.5	6.6 ± 2.4	Filtered		LAS
RD-34B	Primary	08/18/96	2.3 ± 3.3	6.0 ± 3.3	Filtered		LAS
RD-34B	Primary	02/07/97	5.4 ± 3.5	6.3 ± 2.7	Filtered		LAS
RD-34B	Primary	08/21/97	9.3 ± 4.6	6.4 ± 3.3	Filtered		LAS
RD-34B	Primary	05/27/98	12.8 ± 4.1	13.2 ± 2.0	Filtered		TN
RD-34B	Primary	08/18/98	1.26 ± 0.76	5.29 ± 1.7	Filtered		TN
RD-34B	Primary	02/04/99	7.65 ± 3.2	8.57 ± 2.3	Filtered		TN
RD-34B	Primary	02/05/00	5.25 ± 1.6	7.99 ± 2.0	Filtered		TR
RD-34B	Primary	02/16/01	3.85 ± 2.3	5.59 ± 1.9	Filtered		ES
RD-34B	Primary	02/15/02	3.80 ± 2.64	7.89 ± 1.79	Filtered		DL
RD-34C	Primary	12/06/91	1.01 ± 1.18	3.76 ± 1.34	Filtered		ΙΤ
RD-34C	Primary	03/10/92	<2	6 ± 3	Filtered		CEP
RD-34C	Split	03/10/92	<4	6.7 ± 2.6	Filtered	,	TEL
RD-34C	Primary	06/08/92	1±1	-4 ± 3	Filtered		CEP
RD-34C	Split	09/13/92	2.9 ± 5.2	15 ± 5	Filtered	•	BL
RD-34C	Primary	09/13/92	0.9 ± 1.9	6 ± 4	Filtered		CEP
RD-34C	Primary	12/05/92	<2	<3	Filtered		CEP
RD-34C	Primary	03/09/93	5 ± 3	7 ± 4	Filtered		CEP
RD-34C	Primary	06/24/93	<2	<3	Filtered		CEP
RD-34C	Primary	08/24/93	<2	<3	Filtered	•	CEP
RD-34C	Primary	11/06/93	1.6 ± 1.9	3.7 ± 2.1	Filtered		LAS
RD-34C	Primary	02/26/94	1.6 ± 2.1	. 5.2 ± 2.2	Filtered		LAS
RD-34C	Primary	08/09/94	2.8 ± 2.3	5.3 ± 2.0	Filtered		LAS
RD-34C	Primary	02/07/95	2.7 ± 2.4	4.2 ± 2.4	Filtered		LAS
RD-34C	Primary	08/10/95	2.3 ± 2.1	3.7 ± 2.0	Filtered		LAS

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Vell Identifier	Sample Type	Date	Gross Alpha	Gross Beta	Sample	Sample Comment	Laboratory
20.640		Sampled	(pCi/I)	(pCi/l)	Handling		
RD-54B	Primary	08/08/94	2.5 ± 4.2	5.9 ± 4.1	Filtered		LAS
RD-54B	Primary	08/30/95	4.6 ± 5.0	4.6 ± 4.3	Filtered		LAS
RD-54B	Primary	05/16/96	5.8 ± 5.6	10.9 ± 5.6	Filtered		LAS
RD-54B	Primary	08/23/96	0.8 ± 3.4	7.5 ± 3.7	Filtered		LAS
RD-54B	Primary	08/22/97	5.9 ± 4.0	5.7 ± 3.0	Filtered		LAS
RD-54B	Primary	02/08/98	1.42 ± 1.2	7.00 ± 1.7	Filtered		TN
RD-54B	Primary	08/07/98	-1.66 ± 4.2	-14.0 ± 22	Filtered		TN
RD-54B	Primary	02/08/99	1.44 ± 3.7	17.2 ± 4.4	Filtered		TN
RD-54B	Primary	03/15/00	1.05 ± 1.2	0.622 ± 2.2	Filtered		TR
RD-54B	Primary	10/25/01	7.40 ± 3.30	2.88 ± 1.14	Filtered		DL
RD-54B	Primary	02/27/02	2.59 ± 1.9	4.4 ± 1.5	Filtered		DL.
RD-54C	Primary	09/11/93	6 ± 3	10 ± 3	Filtered		CEP
RD-54C	Primary	09/29/93	<2	<3	Filtered		CEP
RD-54C	Primary	05/08/94	1.9 ± 1.8	2.9 ± 1.7	Filtered		LAS
RD-54C	Primary	08/08/94	0.8 ± 1.5	2.7 ± 1.4	Filtered		LAS
RD-54C	Primary	08/30/95	1.3 ± 1.7	4.3 ± 1.6	Filtered		LAS
RD-54C	Primary	05/16/96	3.4 ± 1.4	4.0 ± 1.5	Filtered		LAS
RD-54C	Primary	08/23/96	0.7 ± 1.4	· 3.2 ± 1.5	Filtered		LAS
RD-54C	Primary	05/05/97	1.4 ± 1.4	2.0 ± 1.4	Filtered		LAS
RD-54C	Primary	08/24/97	-0.18 ± 0.74	1.4 ± 1.3	Filtered		LAS
RD-54C	Primary	02/08/98	0.349 ± 0.63	2.36 ± 1.3	Filtered		TN
RD-54C	Primary	08/07/98	-1.41 ± 6.2	-6.31 ± 16	Filtered		TN
RD-54C	Primary	02/09/99	-0.998 ± 1.4	7.69 ± 3.3	Filtered	,	TN
RD-54C	Primary	03/15/00	0.652 ± 1.3	4.04 ± 2.5	Filtered		TR
RD-54C	Primary	11/02/01	2.23 ± 1.54	2.07± 1.10	Filtered		DL
RD-54C	Primary	02/27/02	1.77 ± 1.38	1.27 ± 1.01	Filtered		DL
RD-56A	Primary	05/10/94	3.9 ± 4.5	9.3 ± 5.2	Filtered		LAS
RD-56A	Primary	02/20/96	4.1 ± 3.4	3.7 ± 2.2	Filtered		LAS
RD-56A	Primary	02/06/97	5.5 ± 4.4	6.2 ± 3.6	Filtered		LAS
RD-56A	Primary	05/28/98	3.82 ± 2.3	5.45 ± 1.5	Filtered		TN
RD-56B	Primary	05/28/98	3.53 ± 2.0	6.17 ± 1.5	Filtered		TN
RD-57	Primary	03/16/94	5.2 ± 3.1	4.1 ± 2.3	Filtered		LAS
RD-57	Primary	05/10/94	2.3 ± 2.2	5.4 ± 2.5	Filtered		LAS
RD-57	Primary	08/18/94	2.8 ± 2.7	8.6 ± 3.2	Filtered		LAS
RD-57	Primary	02/07/95	1.3 ± 2.1	4.8 ± 2.4	Filtered	•	LAS
RD-57	Primary	08/09/95	4.2 ± 2.7	6.1 ± 2.5	Filtered		LAS
RD-57	Primary	02/19/96	3.8 ± 3.0	5.4 ± 1.7	Filtered		LAS
RD-57	Primary	08/22/96	2.4 ± 4.5	5.3 ± 4.1	Filtered		LAS
RD-57	Primary	02/25/97	6.5 ± 3.1	6.2 ± 2.1	Filtered		LAS
RD-57	Primary	08/27/97	6.2 ± 3.5	5.6 ± 2.9	Filtered		LAS
RD-57	Primary	05/26/98	4.96 ± 2.0	5.43 ± 1.7	Filtered		TN

TABLE E-1
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
RD-59C	Primary	02/17/01	1.11 ± 1.7	4.17 ± 1.5	Filtered		ES
RD-59C	Primary	02/28/02	0.23 ± 1.68	1.84 ± 1.92	Filtered		DL
RD-61	Primary	05/28/98	2.72 ± 1.8	3.58 ± 1.7	Filtered		TN
RD-63	Primary	09/22/94	12.9 ± 5.6	10.3 ± 4.6	Filtered		LAS
RD-63	Primary	10/06/94	4.7 ± 4.1	9.4 ± 4.1	Filtered	Pilot extraction effluent.	LAS
RD-63	Primary	11/09/94	14.4 ± 5.7	10.9 ± 3.8	Filtered	Filot extraction entitent.	LAS
RD-63	Primary	01/04/95	8.7 ± 5.2	7.7 ± 4.1	Filtered		LAS
RD-63	Primary	02/02/99	17.6 ± 5.3	19.1 ± 3.0	Filtered		TN
RD-63	•	02/16/00	9.95 ± 4.1	9.70 ± 4.2	Filtered		
	Primary						TR
RD-63	Primary	02/23/01	13.7 ± 3.7	7.73 ± 1.9	Filtered		ES
RD-63	Primary	02/14/02	9.48 ± 3.51	8.14 ± 1.64	Filtered		DL
RD-64	Primary	05/10/01	3.98 ± 2.6	8.63 ± 2.0	Filtered		ES
RD-64	Primary	02/28/02	5.10 ± 2.67	5.93 ± 1.10	Filtered		DL
RD-65	Primary	02/27/97	0.3 ± 1.7	0.5 ± 1.8	Filtered		LAS
RD-65	Primary	02/07/98	2.24 ± 1.3	4.39 ± 1.6	Filtered		TN
RD-69	Primary	05/28/98	2.33 ± 1.8	3.80 ± 1.4	Filtered		TN
RD-74	Primary	05/13/99	8.82 ± 3.4	5.29 ± 1.9	Filtered		TN
WS-04A	Primary	06/03/89	9.9 ± 2.5	5.8 ± 0.7	Unfiltered		BC
WS-04A	Primary	07/23/89	-1.0 ± 1.5	7.1 ± 0.4	Unfiltered, Decanted		ВС
WS-04A	Primary	09/09/89	5.6 ± 1.9	12.4 ± 0.6	Unfiltered		BC
WS-04A	Primary	09/09/89	2.1 ± 1.5	7.8 ± 0.5	Filtered		BC
WS-04A	Primary	12/06/90	2.18 ± 2.79	5.90 ± 2.66	Filtered		ΙΤ
WS-04A	Primary	03/18/93	<2	5 ± 2	Filtered		CEP
WS-04A	Primary	06/10/93	4 ± 3	9 ± 4	Filtered	Gross alpha: high statistics due to large amount of solids.	CEP
WS-04A	Primary	08/23/93	<2	8 ± 3	Filtered		CEP
WS-04A	Primary	11/04/93	1.3 ± 2.3	4.3 ± 3.2	Filtered		LAS
WS-05	Primary	06/01/89	-1.0 ± 2.7	6.2 ± 0.5	Unfiltered		BC
WS-05	Primary	07/22/89	3.5 ± 1.5	7.5 ± 0.4	Unfiltered, Decanted		BC
WS-05	Primary	09/09/89	4.0 ± 1.6	10.2 ± 0.4	Unfiltered		BC
WS-05	Primary	09/09/89	1.5 ± 1.4	9.3 ± 0.3	Filtered		BC
WS-06	Primary	06/01/89	7.4 ± 4.3	5.2 ± 0.8	Unfiltered		ВС
WS-06	Primary	07/23/89	5.8 ± 1.7	7.6 ± 0.4	Unfiltered, Decanted		BC
WS-06	Primary	09/11/89	2.4 ± 2.4	12.3 ± 0.8	Unfiltered		BC
WS-06	Primary	09/11/89	2.9 ± 2.3	12.9 ± 0.8	Filtered	•	вс
WS-07	Primary	06/04/89	3.4 ± 4.0	7.3 ± 0.8	Unfiltered		BC
WS-07	Primary	07/23/89	8.3 ± 1.9	4.7 ± 0.5	Unfiltered, Decanted		BC
NS-07	Primary	12/06/90	3.80 ± 2.03	5.07 ± 2.59	Filtered		IT
WS-07	Duplicate	12/06/90	2.10 ± 1.69	5.23 ± 2.68	Filtered		iT
WS-07	Primary	03/08/91	5.76 ± 2.68	4.82 ± 2.55	Filtered		ίΤ

TABLE E-1 .
RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/I)	Sample Handling	Sample Comment	Laboratory
HAR-16	Primary	06/05/89	4.2 ± 1.9	1.7 ± 0.8	Unfiltered		ВС
HAR-16	Primary	07/25/89	4.6 ± 1.9	5.4 ± 0.8	Unfiltered, Decanted		ВС
HAR-16	Primary	09/09/89	2.1 ± 1.3	4.5 ± 0.4	Unfiltered		BC
HAR-16	Primary	09/09/89	1.0 ± 1.1	3.6 ± 0.3	Filtered		BC
HAR-18	Primary	03/15/93	<2	<3	Filtered		CEP
HAR-16	Primary	06/09/93	3±2	7 ± 4	Filtered	Gross alpha: high statistics due to large amounts of solids.	CEP
HAR-16	Primary	08/09/93	<2	<3	Filtered		CEP
HAR-16	Primary	11/22/93	-0.5 ± 2.0	3.0 ± 2.5	Filtered		LAS
HAR-17	Primary	06/04/89	7.3 ± 2.5	2.3 ± 0.6	Unfiltered		BC
HAR-17	Primary	07/23/89	4.7 ± 1.7	4.6 ± 0.5	Unfiltered, Decanted		BC
HAR-17	Primary	06/28/90	7.88 ± 5.95	5.39 ± 2.80	Filtered		UST
HAR-17	Primary	03/17/93	7±5	4 ± 3	Filtered		CEP
HAR-17	Primary	06/09/93	3 ± 2	12 ± 4	Filtered	Gross alpha: high statistics due to large amounts of solids.	CEP
HAR-17	Primary	08/09/93	<2	<3	Filtered		CEP
HAR-17	Primary	11/08/93	2.9 ± 3.4	4.1 ± 4.2	Filtered		LAS
HAR-18	Primary	06/05/89	11.8 ± 4.4	9.5 ± 1.1	Unfiltered		BC
HAR-18	Primary	07/25/89	8.6 ± 2.6	16.7 ± 1.0	Unfiltered, Decanted		BC
HAR-18	Primary	09/11/89	21.6 ± 4.7	14.0 ± 1.9	Unfiltered		ВС
HAR-18	Primary	09/11/89	16.5 ± 4.5	20.1 ± 1.7	Filtered		ВС
HAR-18	Primary	05/08/94	19.1 ± 7.2	9.7 ± 4.5	Filtered		LAS
HAR-19	Primary	09/09/89	10.0 ± 2.1	11.0 ± 0.5	Unfiltered		BC
HAR-19	Primary	09/09/89	6.0 ± 1.9	12.0 ± 0.4	Filtered		BC
HAR-20	Primary	09/09/89	20.0 ± 2.9	13.0 ± 0.72	Unfiltered		BC
HAR-20	Primary	09/09/89	12.0 ± 2.6	9.0 ± 0.6	Filtered		BC
HAR-21	Primary	09/09/89	15.0 ± 2.5	19.0 ± 0.9	Unfiltered		BC
HAR-21	Primary	09/09/89	11.0 ± 2.1	11.0 ± 0.7	Filtered		BC
HAR-23	Primary	06/02/89	-1.0 ± 3.8	7.7 ± 0.8	Unfiltered		BC
HAR-23	Primary	07/22/89	4.2 ± 1.6	8.0 ± 0.3	Unfiltered, Decanted		BC
HAR-26	Primary	07/22/89	2.6 ± 1.4	3.3 ± 0.5	Unfiltered, Decanted		BC
HAR-26	Primary	02/23/94	0.8 ± 2.4	3.9 ± 2.7	Filtered		LAS
HAR-26	Primary	08/15/94	0.2 ± 2.5	3.8 ± 3.2	Filtered		LAS
OS-01	Primary	06/05/89	-1.0 ± 3.0	5.6 ± 0.7	Unfiltered		BC
OS-01	Primary	07/24/89	5.1 ± 3.7	6.5 ± 1.2	Unfiltered, Decanted	•	BC
OS-01	Primary	09/13/89	3.6 ± 2.5	9.0 ± 0.9	Unfiltered		BC
OS-01	Primary	09/13/89	2.3 ± 2.3	5.5 ± O.8	Filtered		BC
OS-01	Primary	06/28/90	2.28 ± 2.57	4.21 ± 2.51	Filtered		UST
OS-01	Primary	12/11/90	2.62 ± 1.83	5.31 ± 2.64	Filtered		IT
OS-01	Primary	03/09/91	3.19 ± 2.18	5.91 ± 2.60	Filtered		ŧΤ
OS-01	Primary	12/09/91	4.63 ± 3.03	5.79 ± 2.01	Filtered		IT

TABLE E-1RESULTS OF ANALYSES FOR GROSS ALPHA AND GROSS BETA RADIOACTIVITY IN GROUNDWATER Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
OS-04	Primary	06/05/89	-1.0 ± 3.0	3.0 ± 0.7	Unfiltered		ВС
DS-04	Primary	07/24/89	5.1 ± 2.0	12.0 ± 0.8	Unfiltered, Decanted		BC
DS-04	Primary	09/13/89	5.2 ± 3.3	14.1 ± 1.1	Unfiltered		BC
OS-04	Primary	09/13/89	-1.0 ± 2.3	8.8 ± 0.8	Filtered		BC
OS-04	Primary	12/11/90	0.731 ± 1.39	4.08 ± 2.42	Filtered		IT
OS-04	Primary	06/09/92	1±2	6±3	Filtered		CEP
OS-04	Primary	06/22/93	3 ± 2	10 ± 3	Filtered	Gross alpha: high statistics due to large	CEP
	•					amounts of solids.	
OS-04	Primary	08/23/93	<2	<3	Filtered		CEP
OS-04	Primary	02/23/94	1.3 ± 3.4	6.1 ± 3.2	Filtered		LAS
OS-04	Primary	08/15/94	1.5 ± 2.9	3.9 ± 3.6	Filtered		LAS
OS-05	Primary	06/05/89	7.4 ± 2.3	7.3 ± 0.6	Unfiltered		BC
OS-05	Primary	07/24/89	6.4 ± 2.1	9.2 ± 0.9	Unfiltered, Decanted		BC
OS-05	Primary	09/13/89	-1.0 ± 2.7	9.9 ± 1.0	Unfiltered		BC
OS-05	Primary	09/13/89	-1.0 ± 2.7	11.7 ± 1.0	Filtered		BC
OS-05	Primary	03/27/90	2.60 ± 3.33	4.30 ± 2.57	Filtered		UST
OS-05	Primary	06/28/90	2.80 ± 3.67	7.27 ± 2.84	Filtered		UST
OS-05	Primary	09/14/90	5.86 ± 4.59	9.76 ± 5.05	Filtered		UST
OS-05	Primary	12/11/90	0.515 ± 1.12	3.43 ± 2.45	Filtered		ΙΤ
OS-05	Primary	03/08/91	3.14 ± 2.75	4.17 ± 2.42	Filtered		IT
OS-05	Primary	12/09/91	2.39 ± 2.65	6.23 ± 2.31	Filtered		IT
O\$-05	Primary	06/09/92	-0.2 ± 2	5 ± 3	Filtered		ÇEP
OS-05	Split	09/15/92	1.2 ± 6.3	12 ± 8	Filtered		BL
OS-05	Primary	09/15/92	1.9 ± 2.0	6 ± 4	Filtered		CEP
OS-05	Primary	12/17/92	3 ± 2	7 ± 4	Filtered		CEP
OS-05	Primary	06/22/93	4 ± 3	16 ± 7	Filtered	Gross alpha: high statistics due to large amounts of solids.	CEP
OS-05	Primary	08/23/93	<2	<3	Filtered		CEP
OS-05	Primary	11/08/93	1.3 ± 3.3	4.9 ± 3.8	Filtered		LAS
O\$-05 O\$-05	Primary	02/23/94	5.2 ± 4.7	7.4 ± 3.6	Filtered		LAS
OS-08	Primary	06/05/89	-1.0 ± 3.0	3.8 ± 0.5	Unfiltered		BC
OS-08	Primary	07/24/89	1.2 ± 1.2	4.5 ± 0.5	Unfiltered, Decanted		BC
O\$-08	Primary	09/13/89	1.5 ± 2.6	1.6 ± 0.8	Unfiltered		BC
O\$-08	Primary	09/13/89	-1.0 ± 2.2	-1.0 ± 0.7	Filtered		BC
OS-08	Primary	06/09/92	0 ± 2	1 ± 3	Filtered	•	CEP
OS-08	Primary	06/22/93	<2	10 ± 3	Filtered		CEP
OS-08	Primary	08/15/94	0.2 ± 3.3	2.1 ± 4.4	Filtered		LAS
OS-10	Primary	06/05/89	-1.0 ± 1.9	4.7 ± 0.5	Unfiltered		BC
DS-10 DS-10	Primary	07/24/89	2.2 ± 1.4	4.2 ± 0.6	Unfiltered, Decanted		BC
OS-10 OS-10	Primary	09/13/89	-1.0 ± 1.8	-1.0 ± 0.6	Unfiltered		BC

Well Identifier	Sample Type	Date Sampled	Gross Alpha (pCi/l)	Gross Beta (pCi/l)	Sample Handling	Sample Comment	Laboratory
CALLEGUAS	Primary	03/12/92	<2	5±3	Filtered		CEP
CALLEGUAS	Primary	09/22/92	0.7 ± 2.0	1.8 ± 2.3	Filtered		CEP

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Concentration (picoCuries per	Sample Handling	Sample Comments	Laboratory
SHALLOW		•	liter)			
SH-04	Primary	09/09/89	-75.8 ± 124	Unfiltered		UST
SH-04	Split	09/09/89	<1000	Unfiltered		TMA
SH-05	Primary	11/29/89	-202 ± 239	Unfiltered		UST
SH-06	Primary	11/29/89	-12.2 ± 249	Unfiltered		UST
SH-07	Primary	09/09/89	-80.5 ± 124	Unfiltered		UST
SH-07	Split	09/09/89	<1000	Unfiltered		TMA
SH-07	Primary	11/29/89	-258 ± 235	Unfiltered		UST
SH-11	Primary	09/09/89	-43.1 ± 126	Unfiltered		UST
SH-11	Split	09/09/89	<1000	Unfiltered		·TMA
RS-07	Primary	09/11/89	-74.6 ± 120	Unfiltered		UST
RS-07	Split	09/11/89	<100	Unfiltered		TMA
RS-11	Primary	12/06/90	43.2 ± 200	Unfiltered		IT
RS-11	Primary	03/04/91	58.2 ± 192	Unfiltered		IT
RS-11	Primary	12/07/91	12.0 ± 212	Unfiltered		IT
RS-11	Primary	03/05/92	<500	Unfiltered		CEP
RS-11	Primary	03/07/93	378 ± 437	Unfiltered		CEP
RS-11	Primary	02/22/94	-80 ± 130	Unfiltered		LAS
RS-11	Primary	02/15/95	30 ± 190	Unfiltered		LAS
RS-11	Primary	02/07/96	-20 ± 160	Unfiltered		LAS
RS-11	Primary	02/04/97	117 ± 59	Unfiltered		LAS
RS-11	Primary	02/04/98	-50.7 ± 120	Unfiltered		TN
RS-11	Primary	02/06/99	80.1 ± 110	Unfiltered		TN
RS-11	Primary	02/15/00	45.4 ± 110	Unfiltered		TR
RS-11	Primary	02/06/01	-11.1 ±98	Unfiltered		ES
RS-13	Primary	09/09/89	-148 ± 121	Unfiltered		UST
RS-13	Split	09/09/89	<1000	Unfiltered		TMA
RS-14	Primary	09/10/89	-116 ± 122	Unfiltered		UST
RS-14	Dup	09/10/89	-39.3 ± 129	Unfiltered		UST
RS-14	Split	09/10/89	<1000	Unfiltered		TMA
RS-14_	Dup	09/10/89	<1000	Unfiltered		TMA
RS-16	Primary	03/09/92	<500	Unfiltered		CEP
RS-16	Primary	06/23/93	25 ± 442	Unfiltered		CEP
RS-16	Primary	02/09/95	-60 ± 190	Unfiltered		LAS
RS-16	Primary	02/04/97	353 ± 75	Unfiltered		LAS
RS-16	Primary	05/27/98	-41.3 ± 120	Unfiltered		TN
RS-17	Primary	12/10/90	61.0 ± 197	Unfiltered		IT
RS-17	Primary	12/07/91	-5.54 ± 211	Unfiltered		ΙΤ
RS-17	Primary	12/05/92	-297 ± 499	Unfiltered		CEP
RS-18	Primary	03/10/91	102 ± 195	Unfiltered		ŀΤ
RS-18	Dup	03/10/91	75.8 ± 194	Unfiltered		ſΤ
RS-18	Primary	03/04/92	-200 ± 496	Unfiltered		CEP
RS-18	Primary	12/15/92	434 ± 495	Unfiltered		CEP
RS-18	Primary	06/23/93	-133 ± 500	Unfiltered		CEP
RS-18	Primary	11/06/93	230 ± 140	Unfiltered		LAS
RS-18	Primary	05/04/94	230 ± 160	Unfiltered		LAS
RS-18	Primary	02/17/95	40 ± 190	Unfiltered		LAS
RS-18	Primary	08/10/95	30 ± 210	Unfiltered		LAS
RS-18	Primary	05/16/96	140 ± 190	Unfiltered		LAS
RS-18	Primary	02/03/97	255 ± 69	Unfiltered		LAS

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Concentration (picoCuries per	Sample	Sample	Laborator
Identifier	Type	Sampled	liter)	Handling	Comments	Laboratory
ES-31	Primary	12/10/90	49.9 ± 196	Unfiltered		IT
ES-31	Primary	03/04/91	590 ± 221	Unfiltered		IT
ES-31	Dup	03/04/91	159 ± 197	Unfiltered		ΙΤ
ES-31	Primary	06/03/91	7.70 ± 194	Unfiltered		IT
ES-31	Primary	09/07/91	-48.1 ± 196	Unfiltered		IT
S-31	Primary	12/07/91	-89.6 ± 206	Unfiltered		IT
ES-31	Primary	03/05/92	<500	Unfiltered		CEP
ES-31	Primary	03/03/93	300 ± 326	Unfiltered		CEP
ES-31	Primary	02/22/94	0 ± 150	Unfiltered		LAS
ES-31	Primary	02/15/95	-40 ± 180	Unfiltered		.LAS
ES-31	Primary	02/06/96	-120 ± 140	Unfiltered		LAS
ES-31	Primary	02/04/97	155 ± 64	Unfiltered		LAS
S-31	Primary	02/04/98	38.4 ± 120	Unfiltered		TN
ES-31	Primary	02/06/99	62.7 ± 100	Unfiltered		TN
ES-31	Primary	02/06/00	0 ± 120	Unfiltered		TR
S-31	Primary	02/15/01	24.8 ±120	Unfiltered		ES
S-31	Primary	02/18/02	65 ± 121	Unfiltered		DL
-3-31 HAR-3	Primary	09/11/89	-4.78 ± 121	Unfiltered		UST
IAR-3	Split	09/11/89	<1000	Unfiltered		TMA
IAR-4	Primary	09/11/89	-185 ± 115	Unfiltered		UST
1AR-4 1AR-4	Split	09/11/89	<1000 <1000	Unfiltered		TMA
1AR-4 1AR-4			<1000			
	Dup	09/11/89		Unfiltered		TMA
IAR-14	Primary	09/12/89	-22.9 ± 124 <1000	Unfiltered		UST
IAR-14	Split Primary	09/12/89	-45.0 ± 129	Unfiltered		TMA UST
HAR-30	•	09/12/89	-45.0 ± 129 <1000	Unfiltered		TMA
HAR-30	Split	09/12/89 TION WELLS	<u> </u>	Unfiltered		UVIA
RD-01	Primary	09/11/89	123 ± 137	Unfiltered		UST
RD-01	Split	09/11/89	<1000	Unfiltered		TMA
RD-03	Primary	09/10/89	-155 ± 122	Unfiltered		UST
RD-03	Split	09/10/89	<1000	Unfiltered		TMA
RD-03	Primary	09/11/89	<1000	Unfiltered		TMA
RD-03	Primary	09/12/89	-129 ± 117	Unfiltered		UST
RD-05B	Primary	09/10/89	-10.3 ± 128	Unfiltered		UST
RD-05B	Split	09/10/89	<1000	Unfiltered		TMA
RD-05B	Primary	09/10/91	144 ± 202	Unfiltered		IT
RD-06	Primary	09/10/89	-44.0 ± 126	Unfiltered		UST
RD-06	Split	09/10/89	<1000	Unfiltered		TMA
RD-06	Primary	03/06/91	83.1 ± 193	Unfiltered		IT
RD-06	Primary	09/10/91	58.6 ± 197	Unfiltered		iT
RD-06	Primary	03/10/92	<500	Unfiltered		CEP
RD-06	Primary	08/06/95	23.5 ± 5.9	Unfiltered	Analysis conducted	LAS
	· milary	00/00/00	20.0 2 0.0	O	using electrolytic enrichment.	
RD-07	Primary	09/11/89	-101 ± 128	Unfiltered	Oranomically.	UST
RD-07	Split	09/11/89	<1000	Unfiltered		TMA
RD-07	Primary	12/05/90	-8.63 ± 201	Unfiltered		IT
RD-07	Primary	03/09/91	32,3 ± 192	Unfiltered		iT
RD-07	Primary	12/07/91	68.4 ± 215	Unfiltered		ir
RD-07	Primary	03/06/92	<500	Unfiltered		CEP

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Concentration	Sample	Sample	Labaratan
Identifier	Туре	Sampled	(picoCuries per liter)	Handling	Comments	Laboratory
RD-15	Primary	12/07/90	49.9 ± 198	Unfiltered		IT
RD-15	Primary	03/10/91	85.5 ± 186	Unfiltered		IT
RD-15	Primary	12/06/91	-26.8 ± 210	Unfiltered		ΙΤ
RD-15	Split	03/11/92	<100	Unfiltered		TEL
RD-15	Primary	03/11/92	<500	Unfiltered		CEP
RD-15	Primary	05/10/01	75.2 ± 120	Unfiltered		ES
RD-15	Primary	03/06/02	0 ± 78	Unfiltered		DL
RD-16	Primary	10/25/89	176 ± 222	Unfiltered		UST
RD-16	Primary	12/07/90	56.3 ± 198	Unfiltered		IT
RD-16	Primary	03/09/91	98.1 ± 187	Unfiltered		·IT
RD-16	Primary	12/05/91	67.4 ± 219	Unfiltered		IT
RD-16	Primary	06/06/92	564 ± 529	Unfiltered		CEP
RD-16	Primary	05/27/98	-160 ± 120	Unfiltered		TN
RD-17	Primary	10/18/89	77.8 ± 243	Unfiltered		UST
RD-17	Dup	10/18/89	14.1 ± 194	Unfiltered		UST
RD-17	Primary	12/04/90	108 ± 199	Unfiltered		IT
RD-17	Primary	03/05/91	1.85 ± 189	Unfiltered		iT
RD-17	Split	12/07/91	<500	Unfiltered		CEP
RD-17	Primary	12/07/91	-44.4 ± 209	Unfiltered		IT
RD-17	Primary	03/04/92	-98 ± 498	Unfiltered		CEP
RD-17	Primary	03/05/93	160 ± 300	Unfiltered		CEP
RD-17	Primary	02/26/94	-70 ± 130	Unfiltered		LAS
RD-17	Primary	02/20/94	-10 ± 130	Unfiltered		LAS
RD-17	•	02/04/96	-30 ± 150	Unfiltered		LAS
	Primary	02/08/97	-30 ± 150 10 ± 120			LAS
RD-17	Primary	02/04/98	-80.3 ± 110	Unfiltered Unfiltered		TN
RD-17 RD-17	Primary		-00.3 ± 110 -13.1 ± 120			
	Primary	02/08/99	62.8 ± 120	Unfiltered		TN TR
RD-17	Primary	02/21/00		Unfiltered		ES
RD-17	Primary	02/14/01	71.9 ± 120	Unfiltered		
RD-17	Primary	03/01/02 10/26/89	264 ± 58	Unfiltered		DL
RD-18	Primary		53.6 ± 215	Unfiltered		UST
RD-18	Primary	12/08/90	26.8 ± 195	Unfiltered		IT FT
RD-18	Primary	03/09/91	201 ± 192	Unfiltered		IT T
RD-18	Primary	12/11/91	-18.3 ± 217	Unfiltered		IT
RD-18	Primary	03/12/92	<500	Unfiltered		CEP
RD-18	Primary	02/22/94	40 ± 150	Unfiltered		LAS
RD-18	Primary	02/17/95	-90 ± 170	Unfiltered		LAS
RD-18	Primary	02/05/96	20 ± 160	Unfiltered		LAS
RD-18	Primary	02/06/97	100 ± 60	Unfiltered		LAS
RD-18	Primary	02/06/98	13.7 ± 110	Unfiltered		TN
RD-19	Primary	10/26/89	27.3 ± 214	Unfiltered		UST
RD-19	Primary	12/08/90	-20.3 ± 193	Unfiltered		IT •=
RD-19	Primary	03/08/91	11.5 ± 182	Unfiltered		IT
RD-19	Dup	03/08/91	225 ± 193	Unfiltered		IT (T
RD-19	Primary	12/11/91	-22.1 ± 217	Unfiltered		(T
RD-19	Primary	03/12/92	<500	Unfiltered		CEP
RD-19	Primary	03/08/93	262 ± 499	Unfiltered		CEP
RD-19	Primary	02/26/94	-80 ± 130	Unfiltered		LAS
RD-19	Primary	02/15/95	-40 ± 180	Unfiltered		LAS
RD-19	Primary	02/06/96	-40 ± 150	Unfiltered		LAS

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Concentration	Sample	Sample	Labaratan
Identifier	Туре	Sampled	(picoCuries per liter)	Handling	Comments	Laboratory
RD-22	Primary	02/16/96	20 ± 190	Unfiltered		LAS
RD-22	Primary	08/18/96	-20 ± 110	Unfiltered		LAS
RD-22	Primary	02/26/97	140 ± 130	Unfiltered		LAS
RD-22	Primary	05/28/98	43.7 ± 110	Unfiltered		TN
RD-22	Primary	02/17/99	41.5 ± 120	Unfiltered		TN
RD-22	Primary	02/06/00	-139 ± 120	Unfiltered		TR
RD-22	Primary	02/16/01	-6.18 ± 120	Unfiltered		ES
RD-22	Primary	02/20/02	228 ± 80	Unfiltered		DL
RD-23	Primary	10/20/89	589 ± 267	Unfiltered		UST
RD-23	Primary	06/29/90	129 ± 218	Unfiltered		, UST
RD-23	Primary	12/05/90	88.3 ± 206	Unfiltered		ΙΤ
RD-23	Primary	03/11/91	106 ± 195	Unfiltered		IT
RD-23	Dup	03/11/91	64.7 ± 193	Unfiltered		IT
RD-23	Primary	12/05/91	256 ± 229	Unfiltered		IT
RD-23	Primary	03/04/92	-66 ± 517	Unfiltered		CEP
RD-23	Primary	03/21/93	455 ± 499	Unfiltered		CEP
RD-23	Primary	06/23/93	1574 ± 702	Unfiltered		CEP
RD-23	Reanalysis		672 ± 735	Unfiltered		CEP
	Primary	0. 00/20/00	0.22.00	0111110104		C
RD-23	Primary	08/06/93	1108 ± 514	Unfiltered		CEP
RD-23	Reanalysis		406 ± 500	Unfiltered		CEP
	Primary	3. 34. 30. 33	100 2 000	01111110100		OL.
RD-23	Primary	02/25/94	850 ± 250	Unfiltered		CEP
RD-23	Primary	08/08/94	500 ± 210	Unfiltered		LAS
RD-23	Primary	11/22/94	630 ± 250	Unfiltered		LAS
RD-23	Primary	02/05/95	340 ± 230	Unfiltered		LAS
RD-23	Primary	08/03/95	400 ± 250	Unfiltered		LAS
RD-23	Primary	02/16/96	430 ± 210	Unfiltered		LAS
RD-23	Primary	08/18/96	450 ± 180	Unfiltered		LAS
RD-23	Primary	02/27/97	350 ± 150	Unfiltered		LAS
RD-23	Primary	02/07/98	234 ± 120	Unfiltered		TN
RD-23	Primary	02/08/99	294 ± 130	Unfiltered		TN
RD-23	Primary	02/05/00	64.4 ± 120	Unfiltered		TR
RD-23	Primary	10/25/01	46 ± 108	Unfiltered		DL
RD-23	Primary	03/01/02	304 ± 59	Unfiltered		DL
RD-24	Primary	09/12/89	-22 ± 122	Unfiltered		UST
RD-24	Dup	09/12/89	<1000	Unfiltered	-	TMA
RD-24	Primary	10/17/89	-89.0 ± 229	Unfiltered		UST
RD-24	Primary	12/05/90	37.4 ± 204	Unfiltered		IT
RD-24	Primary	03/06/91	158 ± 197	Unfiltered		iT
RD-24	Primary	12/11/91	-33.7 ± 216	Unfiltered		iT
RD-24	Primary	03/06/92	<500	Unfiltered		CEP
RD-24	Primary	02/23/94	230 ± 180	Unfiltered		LAS
RD-24	Primary	08/08/94	80 ± 150	Unfiltered		LAS
RD-24	Primary	02/16/95	320 ± 220	Unfiltered		LAS
RD-24	Primary	08/10/95	170 ± 230	Unfiltered		LAS
RD-24	Primary	02/07/96	400 ± 190	Unfiltered		LAS
RD-24	Primary	08/07/96	320 ± 160	Unfiltered		LAS
RD-24	Primary	02/07/97	500 ± 180	Unfiltered		LAS
RD-24	Primary	08/04/97	390 ± 160	Unfiltered		LAS

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Concentration (picoCuries per liter)	Sample Handling	Sample Comments	Laborator
RD-27	Primary	08/18/94	-110 ± 120	Unfiltered		LAS
RD-27	Primary	02/17/95	-60 ± 180	Unfiltered		LAS
RD-27	Primary	08/18/95	80 ± 220	Unfiltered		LAS
RD-27	Primary	02/05/96	-30 ± 150	Unfiltered		LAS
RD-27	Primary	08/19/96	240 ± 150	Unfiltered		LAS
RD-27	Primary	02/05/97	87 ± 58	Unfiltered		LAS
RD-27	Primary	08/27/97	-16 ± 98	Unfiltered		LAS
RD-27	Primary	02/04/98	11.4 ± 120	Unfiltered		TN
RD-27	Primary	08/07/98	-83.9 ± 130	Unfiltered		TN
RD-27	Primary	02/16/99	3.33 ± 120	Unfiltered		·TN
RD-27	Primary	08/17/99	-48.0 ± 94	Unfiltered		TN
RD-27	Primary	02/21/00	31.2 ± 110	Unfiltered		TR
RD-27	Primary	08/04/00	73.6 ± 130	Unfiltered		TR
RD-27	Primary	02/14/01	8.32 ± 120	Unfiltered		ES
RD-27	Primary	10/26/01	30 ± 107	Unfiltered		DL
RD-27	_	03/06/02	0 ± 77	Unfiltered		DL
RD-27	Primary Primary	08/22/02	-24.9 ± 120	Unfiltered		ES
RD-28	Primary	09/13/89	-24.9 ± 120 665 ± 149	Unfiltered		UST
RD-28	Split	09/13/89	<1000 <1000	Unfiltered		TMA
RD-28	Spill Primary	10/19/89	699 ± 234	Unfiltered		UST
RD-28		03/27/90		Unfiltered		UST
RD-28	Primary		819 ± 236	Unfiltered		UST
	Primary	07/01/90	612 ± 244			UST
RD-28	Primary	09/16/90	814 ± 242	Unfiltered		UST
RD-28	Dup	09/16/90	839 ± 242	Unfiltered		
RD-28	Primary	12/05/90	567 ± 232	Unfiltered		IT IT
RD-28	Primary	03/06/91	638 ± 223	Unfiltered		iT
RD-28	Primary	06/10/91	431 ± 227	Unfiltered		11 1T
RD-28	Primary	09/11/91	620 ± 247	Unfiltered		
RD-28	Split	12/10/91	<500	Unfiltered		CEP IT
RD-28	Primary	12/10/91	575 ± 250	Unfiltered		
RD-28	Primary	03/06/92	420 ± 110	Unfiltered		TEL
RD-28	Split	03/06/92	<500	Unfiltered		CLF
RD-28	Primary	06/10/92	1025 ± 505	Unfiltered		CEP
RD-28	Split	06/10/92	540 ± 120	Unfiltered		TEL
RD-28	Dup	09/16/92	450 ± 290	Unfiltered		BL.
RD-28	Primary	09/16/92	300 ± 500	Unfiltered	,	CEP
RD-28	Primary	12/07/92	465 ± 500	Unfiltered		CEP
RD-28	Primary	03/17/93	0 ± 490	Unfiltered		CEP
RD-28	Primary	08/05/93	1684 ± 522	Unfiltered	•	CEP
RD-28	Reanalysis Primary	of 08/05/93	369 ± 500	Unfiltered		CEP
RD-28	Primary	02/24/94	490 ± 210	Unfiltered		LAS
RD-28	Primary	08/17/94	870 ± 240	Unfiltered		LAS
RD-28	Primary	02/09/95	380 ± 230	Unfiltered		LAS
RD-28	Primary	08/18/95	680 ± 280	Unfiltered		LAS
RD-28	Primary	02/06/96	430 ± 190	Unfiltered		LAS
RD-28	Primary	08/20/96	450 ± 170	Unfiltered		LAS
RD-28	Primary	02/06/97	496 ± 83	Unfiltered		LAS
RD-28	Primary	08/28/97	320 ± 140	Unfiltered		LAS
RD-28	Primary	02/05/98	267 ± 130	Unfiltered		TN

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Concentration	Sample	Sample	Laboraton
Identifier	Type	Sampled	(picoCuries per liter)	Handling	Comments	Laboratory
RD-33A	Primary	12/05/91	97.2 ± 221	Unfiltered		IT
RD-33A	Split	12/12/91	<500	Unfiltered		CEP
RD-33A	Primary	12/12/91	-14.4 ± 214	Unfiltered		IT
RD-33A	Primary	06/08/92	335 ± 515	Unfiltered		CEP
RD-33A	Primary	09/15/92	299 ± 500	Unfiltered		CEP
RD-33A	Primary	12/05/92	-43 ± 500	Unfiltered		CEP
RD-33A	Primary	06/24/93	-468 ± 437	Unfiltered		CEP
RD-33A	Primary	08/24/93	436 ± 500	Unfiltered		CEP
RD-33A	Primary	11/17/93	-70 ± 120	Unfiltered		LAS
RD-33A	Primary	02/27/94	-120 ± 120	Unfiltered		LAS
RD-33A	Primary	05/10/94	60 ± 130	Unfiltered		LAS
RD-33A	Primary	08/18/94	-20 ± 130	Unfiltered		LAS
RD-33A	Primary	02/07/95	-50 ± 200	Unfiltered		LAS
RD-33A	Primary	02/07/95	4.6 ± 5.5	Unfiltered	Analysis conducted	LAS
KD-33A	Primary	02/07/95	4.0 ± 5.5	Offilitered	Analysis conducted using electrolytic enrichment.	LAS
RD-33A	Primary	08/09/95	90 ± 220	Unfiltered		LAS
RD-33A	Primary	02/19/96	10 ± 180	Unfiltered		LAS
RD-33A	Primary	08/23/96	120 ± 140	Unfiltered		LAS
RD-33A	Primary	02/25/97	120 ± 130	Unfiltered		LAS
RD-33A	Primary	08/27/97	-78 ± 86	Unfiltered		LAS
RD-33A	Primary	05/27/98	-125 ± 120	Unfiltered		TN
RD-33A	Primary	08/17/98	0 ± 130	Unfiltered		TN
RD-33A	_	02/03/99	-2.34 ± 100	Unfiltered		TN
RD-33A	Primary	02/03/99	-59.1 ± 120	Unfiltered		TR
RD-33A	Primary	05/14/01	-59.1 ± 120 -57.4 ± 120	Unfiltered		ES
RD-33A	Primary		257 ± 122	Unfiltered		DL
RD-33B	Primary Split	02/15/02 12/12/91	<500	Unfiltered		CEP
RD-33B	Primary	12/12/91	51.9 ± 218	Unfiltered		IT
	_			Unfiltered		CEP
RD-33B	Primary	06/24/92	-219 ± 492			
RD-33B	Primary	09/15/92	500 ± 500	Unfiltered		CEP
RD-33B	Primary	12/05/92	4 ± 500	Unfiltered		CEP
RD-33B	Primary	06/24/93	-346 ± 500	Unfiltered		CEP
RD-33B	Primary	08/24/93	0 ± 500	Unfiltered		CEP
RD-33B	Primary	11/17/93	-60 ± 120	Unfiltered		LAS
RD-33B	Primary	02/27/94	60 ± 150	Unfiltered		LAS
RD-33B	Primary	05/10/94	-20 ± 120	Unfiltered		LAS
RD-33B	Primary	08/18/94	-130 ± 120	Unfiltered		LAS
RD-33B	Primary	02/07/95	20 ± 200	Unfiltered		LAS
RD-33B	Primary	08/09/95	-80 ± 200	Unfiltered		LAS
RD-33B	Primary	02/19/96	-40 ± 180	Unfiltered		LAS
RD-33B	Primary	08/23/96	-20 ± 110	Unfiltered		LAS
RD-33B	Primary	02/25/97	30 ± 110	Unfiltered		LAS
RD-33B	Primary	08/22/97	-60 ± 110	Unfiltered		LAS
RD-33B	Primary	05/27/98	-173 ± 120	Unfiltered		TN
RD-33B	Primary	08/17/98	-22.9 ± 120	Unfiltered		TN
RD-33B	Primary	02/03/99	-6.96 ± 100	Unfiltered		TH
RD-33B	Primary	08/11/99	-1.67 ± 88	Unfiltered		TN
RD-33B	Primary	05/17/00	-38.6 ± 100	Unfiltered		TR
RD-33B	Primary	08/09/00	64.1 ± 130	Unfiltered		TR

TABLE E-2
RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Concentration	Sample	Sample	Loboraton
ldentifier	Type	Sampled	(picoCuries per liter)	Handling	Comments	Laboratory
RD-34A	Primary	11/09/94	1860 ± 340	Unfiltered		LAS
RD-34A	Primary	02/07/95	3200 ± 440	Unfiltered		LAS
RD-34A	Primary	08/09/95	2080 ± 380	Unfiltered		LAS
RD-34A	Primary	02/19/96	4020 ± 420	Unfiltered		LAS
RD-34A	Primary	08/18/96	4250 ± 470	Unfiltered		LAS
RD-34A	Primary	02/07/97	4870 ± 500	Unfiltered		LAS
RD-34A	Primary	05/27/98	2210 ± 180	Unfiltered		TN
RD-34A	Primary	08/18/98	2060 ± 180	Unfiltered	•	TN
RD-34A	Primary	08/29/00	2440 ± 150	Unfiltered		TR
RD-34A	Primary	05/09/01	3120 ± 200	Unfiltered		· ES
RD-34B	Primary	12/05/91	336 ± 234	Unfiltered		IT
RD-34B	Primary	12/11/91	820 ± 538	Unfiltered		CEP
RD-34B	Split	12/11/91	236 ± 230	Unfiltered		IT
RD-34B	Split	03/10/92	390 ± 100	Unfiltered		TEL.
RD-34B	Primary	03/10/92	<500	Unfiltered		CEP
	•			Unfiltered		CEP
RD-34B	Primary	06/08/92	534 ± 520			
RD-34B	Split	09/13/92	420 ± 290	Unfiltered		BL
RD-34B	Primary	09/13/92	400 ± 500	Unfiltered		CEP
RD-34B	Primary	12/05/92	121 ± 500	Unfiltered		CEP
RD-34B	Primary	03/21/93	125 ± 490	Unfiltered		CEP
RD-34B	Primary	06/23/93	-387 ± 500	Unfiltered		CEP
RD-34B	Primary	08/24/93	286 ± 500	Unfiltered		CEP
RD-34B	Primary	11/18/93	210 ± 150	Unfiltered		LAS
RD-34B	Primary	02/26/94	60 ± 150	Unfiltered		LAS
RD-34B	Primary	05/10/94	220 ± 150	Unfiltered		LAS
RD-34B	Primary	08/09/94	0 ± 140	Unfiltered		LAS
RD-34B	Primary	11/09/94	170 ± 190	Unfiltered		LAS
RD-34B	Primary	02/07/95	220 ± 220	Unfiltered		LAS
RD-34B	Primary	02/07/95	205 ± 12	Unfiltered	Analysis conducted using electrolytic enrichment.	LAS
RD-34B	Primary	08/09/95	90 ± 220	Unfiltered	Official Contraction Contracti	LAS
RD-34B	Primary	02/19/96	448 ± 21	Unfiltered	Analysis conducted	LAS
		02.70,00			using electrolytic enrichment.	
RD-34B	Primary	02/19/96	440 ± 55	Unfiltered		LAS
RD-34B	Primary	08/18/96	330 ± 160	Unfiltered		LAS
RD-34B	Primary	02/07/97	150 ± 130	Unfiltered		LAS
RD-34B	Primary	08/21/97	200 ± 140	Unfiltered		LAS
RD-34B	Primary	05/27/98	372 ± 130	Unfiltered		TN
RD-34B	Primary	08/18/98	376 ± 140	Unfiltered		TN
RD-34B	Primary	02/04/99	650 ± 120	Unfiltered		TN
RD-34B	Primary	08/11/99	176 ± 100	Unfiltered		TN
RD-34B	Primary	02/05/00	200 ± 120	Unfiltered		TR
RD-34B	Primary	02/16/01	180 ± 130	Unfiltered		ES
RD-34B	Primary	11/02/01	89 ± 103	Unfiltered		DL
RD-34B	Primary	02/15/02	151 ± 121	Unfiltered		DL
RD-34B	Primary	08/23/02	-40.8 ± 120	Unfiltered		ES
RD-34C	Primary	12/06/91	71.2 ± 215	Unfiltered		IT
RD-34C	Split	12/12/91	<500	Unfiltered		CEP

RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER Boeing Santa Susana Field Laboratory Ventura County, California

Well	Sample	Date	Concentration (picoCuries per	Sample	Sample	Laboratory
Identifier	Туре	Sampled	liter)	Handling	Comments	Laboratory
RD-50	Primary	05/14/96	-30 ± 170	Unfiltered		LAS
RD-50	Primary	05/05/97	550 ± 170	Unfiltered		LAS
RD-50	Primary	05/28/98	-18.6 ± 110	Unfiltered		TN
RD-51C	Primary	12/14/91	32.7 ± 219	Unfiltered		IT
RD-51C	Primary	03/06/92	<500	Unfiltered		CEP
RD-54A	Primary	09/12/93	-52 ± 500	Unfiltered		CEP
RD-54A	Primary	09/29/93	169 ± 500	Unfiltered		CEP
RD-54A	Primary	05/26/94	270 ± 160	Unfiltered		LAS
RD-54A	Primary	08/09/94	130 ± 160	Unfiltered		LAS
RD-54A	Primary	08/03/95	60 ± 220	Unfiltered		· LAS
RD-54A	Primary	05/16/96	270 ± 200	Unfiltered		LAS
RD-54A	Primary	08/23/96	440 ± 150	Unfiltered		LAS
RD-54A	Primary	05/05/97	430 ± 150	Unfiltered		LAS
RD-54A	Primary	08/22/97	370 ± 160	Unfiltered		LAS
RD-54A	Primary	02/08/98	354 ± 130	Unfiltered		TN
RD-54A	Primary	0,8/07/98	497 ± 140	Unfiltered		TN
RD-54A	Primary	02/08/99	697 ± 160	Unfiltered		TN
RD-54A	Primary	08/18/99	491 ± 110	Unfiltered		TN
RD-54A	Primary	03/15/00	332 ± 120	Unfiltered		TR
RD-54A	Primary	10/26/01	139 ± 109	Unfiltered		DL
RD-54A	Primary	02/27/02	67 ± 56	Unfiltered		DL
RD-54A	Primary	08/14/02	105 ± 120	Unfiltered		ES
RD-54B	Primary	09/12/93	77 ± 500	Unfiltered		CEP
RD-54B	Primary	09/29/93	378 ± 500	Unfiltered		CEP
RD-54B	Primary	05/08/94	-20 ± 120	Unfiltered		LAS
RD-54B	Primary	08/08/94	-110 ± 120	Unfiltered		LAS
RD-54B	Primary	08/30/95	100 ± 240	Unfiltered		LAS
RD-54B	Primary	05/16/96	40 ± 180	Unfiltered		LAS
RD-54B	Primary	08/21/96	-27 ± 91	Unfiltered		LAS
RD-54B	Primary	08/22/97	-80 ± 100	Unfiltered		LAS
RD-54B	Primary	02/08/98	40.8 ± 110	Unfiltered		TN
RD-54B	Primary	08/07/98	26.4 ± 130	Unfiltered		TN
RD-54B	Primary	02/08/99	-59.8 ± 120	Unfiltered		TN
RD-54B	Primary	08/18/99	-6.88 ± 92	Unfiltered		TN
RD-54B	Primary	03/15/00	0 ± 0	Unfiltered		TR
RD-54B	Primary	10/25/01	0.00 ± 79	Unfiltered		DL
RD-54B	Primary	02/27/02	191 ± 59	Unfiltered		DL
RD-54B	Primary	08/21/02	-21.9 ± 120	Unfiltered		ES
RD-54C	Primary	09/11/93	58 ± 500	Unfiltered		CEP
RD-54C	Primary	09/29/93	236 ± 500	Unfiltered		CEP
RD-54C	Primary	05/08/94	0 ± 120	Unfiltered		LAS
RD-54C	Primary	08/08/94	-30 ± 140	Unfiltered		LAS
RD-54C	Primary	08/30/95	-10 ± 230	Unfiltered		LAS
RD-54C	Primary	05/16/96	-40 ± 170	Unfiltered		LAS
RD-54C	Primary	08/23/96	50 ± 100	Unfiltered		LAS
RD-54C	Primary	05/05/97	20 ± 110	Unfiltered		LAS
RD-54C	Primary	08/24/97	10 ± 110	Unfiltered		LAS
RD-54C	Primary	02/08/98	38.3 ± 110	Unfiltered		TN
RD-54C	Primary	08/07/98	35.4 ± 130	Unfiltered		TN
RD-54C	Primary	02/09/99	81.0 ± 120	Unfiltered		TN

RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER

Boeing Santa Susana Field Laboratory

Well	Sample	Date	Concentration	Sample	Sample	Laboraton
Identifier	Туре	Sampled	(picoCuries per liter)	Handling	Comments	Laboratory
RD-59A	Primary	02/28/02	536 ± 115	Unfiltered		DL
RD-59A	Primary	08/08/02	74.2 ± 120	Unfiltered		ES
RD-59B	Primary	08/29/94	40 ± 150	Unfiltered	···	LAS
RD-59B	Primary	02/06/95	-150 ± 180	Unfiltered		LAS
RD-59B	Primary	08/08/95	-90 ± 200	Unfiltered		LAS
RD-59B	Primary	03/12/96	-80 ± 100	Unfiltered		LAS
RD-59B	Primary	08/21/96	38 ± 98	Unfiltered		LAS
RD-59B	Primary	02/16/97	20 ± 120	Unfiltered		LAS
RD-59B	Primary	08/22/97	-30 ± 110	Unfiltered		LAS
RD-59B	Primary	08/19/98	68.8 ± 130	Unfiltered		· TN
RD-59B	Primary	02/16/99	26.3 ± 110	Unfiltered		TN
RD-59B	Primary	08/06/99	24.3 ± 93	Unfiltered		TN
RD-59B	Primary	03/14/00	-67.2 ± 100	Unfiltered		TR
RD-59B	Primary	08/10/00	-23.7 ± 130	Unfiltered		TR
RD-59B	Primary	02/17/01	-68.1 ± 120	Unfiltered		ES
RD-59B	Primary	11/12/01	101 ± 104	Unfiltered		DL
RD-59B	Primary	02/28/02	222 ± 58	Unfiltered		DL
RD-59B	Primary	08/08/02	55.1 ± 120	Unfiltered		ES
RD-59C	Primary	6/20/1994 (225-		Unfiltered		LAS
110-030	rinnary	271')	20 1 140	Offinitered		LAO
RD-59C	Primary	08/16/94	-30 ± 130	Unfiltered		LAS
RD-59C	Primary	02/06/95	-50 ± 190	Unfiltered		LAS
RD-59C	Primary	08/08/95	-200 ± 190	Unfiltered		LAS
RD-59C	Primary	03/12/96	-60 ± 100	Unfiltered		LAS
RD-59C	Primary	08/21/96	50 ± 100	Unfiltered		LAS
	•			Unfiltered		LAS
RD-59C	Primary	02/16/97	40 ± 130	Unfiltered		LAS
RD-59C	Primary	08/22/97	-70 ± 110			TN
RD-59C	Primary	08/19/98	43.3 ± 120	Unfiltered		
RD-59C	Primary	02/16/99	30.6 ± 120	Unfiltered		TN
RD-59C	Primary	08/06/99	-30.5 ± 94	Unfiltered		TN
RD-59C	Primary	03/14/00	7.68 ± 110	Unfiltered		TR
RD-59C	Primary	08/10/00	54.4 ± 130	Unfiltered		TR
RD-59C	Primary	02/17/01	30.6 ± 130	Unfiltered		ES
RD-59C	Primary	11/12/01	132 ± 104	Unfiltered		DL D/
RD-59C	Primary	02/28/02	0 ± 59	Unfiltered		DL
RD-59C	Primary	08/08/02	-43.8 ± 120	Unfiltered		ES
RD-61	Primary	05/28/98	-50.5 ± 110	Unfiltered		TN
RD-63	Primary	05/19/94	40 ± 130	Unfiltered		LAS
RD-63	Primary	09/22/94	80 ± 150	Unfiltered	Dital 4 4	LAS
RD-63	Primary	10/06/94	60 ± 150	Unfiltered	Pilot extraction	LAS
DD 00	Б.	4.100.10.1	00 : 100		effluent.	
RD-63	Primary	11/09/94	90 ± 180	Unfiltered		LAS
RD-63	Primary	01/04/95	350 ± 210	Unfiltered		LAS
RD-63	Primary	02/02/99	362 ± 110	Unfiltered		TN
RD-63	Primary	02/16/00	266 ± 120	Unfiltered		TR
RD-63	Primary	02/23/01	-26.9 ±130	Unfiltered		ES
RD-63	Primary	02/14/02	41 ±1 20	Unfiltered		DL
RD-64	Primary	05/10/01	181 ± 130	Unfiltered		ES
RD-64	Primary	02/28/02	204 ± 58	Unfiltered		DL

RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER Boeing Santa Susana Field Laboratory

Well Identifier	Sample Type	Date Sampled	Concentration (picoCuries per liter)	Sample Handling	Sample Comments	Laboratory
OS-01	Primary	02/23/94	-70 ± 130	Unfiltered		LAS
OS-01	Primary	08/15/94	-70 ± 120	Unfiltered		LAS
OS-01	Primary	02/06/95	10 ± 200	Unfiltered		LAS
OS-01	Primary	08/08/95	-110 ± 200	Unfiltered		LAS
OS-01	Primary	08/21/96	-20 ± 110	Unfiltered		LAS
OS-02	Primary	09/13/89	-90.8 ± 128	Unfiltered		UST
OS-02	Split	09/13/89	<1000	Unfiltered		TMA
OS-02	Primary	12/11/90	-39.7 ± 206	Unfiltered		IT
OS-02	Primary	03/08/91	86.5 ± 186	Unfiltered		. IT
OS-02	Dup	03/08/91	-80.4 ± 186	Unfiltered		· IT
OS-02	Primary	09/09/91	0.00 ± 198	Unfiltered		IT
OS-02	Primary	12/09/91	-61.0 ± 208	Unfiltered		IT
OS-02	Primary Primary	06/09/92	348 ± 493	Unfiltered		CEP
OS-02	Primary	09/15/92	299 ± 500	Unfiltered		CEP
OS-02	Primary	12/17/92	-607 ± 520	Unfiltered		CEP
OS-02	Primary	06/22/93	74 ± 500	Unfiltered		CEP
OS-02	Primary	08/23/93	51 ± 426	Unfiltered		CEP
OS-02	Primary	11/08/93	20 ± 120	Unfiltered		LAS
OS-02	Primary	02/23/94	-20 ± 140	Unfiltered		LAS
OS-02	Primary	08/15/94	10 ± 140	Unfiltered		LAS
OS-02	Primary	02/06/95	-20 ± 200	Unfiltered		LAS
OS-02	Primary	08/08/95	-50 ± 200	Unfiltered		LAS
OS-02	Primary	08/21/96	70 ± 120	Unfiltered		LAS
OS-02	Primary	08/22/97	-40 ± 110	Unfiltered		LAS
OS-02	Primary	08/19/98	-83.2 ± 120	Unfiltered		TN
OS-03	Primary	09/13/89	7.49 ± 132	Unfiltered		UST
OS-03	Split	09/13/89	<1000	Unfiltered		TMA
OS-03	Primary	12/11/90	-35.1 ± 207	Unfiltered		IT
OS-03	Primary	03/08/91	44.4 ± 192	Unfiltered		IT
OS-03	Primary	12/09/91	-9.24 ± 211	Unfiltered		IT
OS-03	Primary	06/09/92	-223 ± 485	Unfiltered		CEP
OS-03	Primary	06/22/93	104 ± 500	Unfiltered		CEP
OS-03	Primary	08/23/93	-120 ± 421	Unfiltered		CEP
OS-03	Primary	11/08/93	80 ± 140	Unfiltered		LAS
OS-03	Primary	02/23/94	0 ± 140	Unfiltered		LAS
OS-03	Primary	08/15/94	-60 ± 130	Unfiltered		LAS
OS-03	Primary	02/06/95	-140 ± 190	Unfiltered		LAS
OS-03	Primary	08/08/95	150 ± 230	Unfiltered		LAS
OS-03	Primary	08/21/96	60 ± 130	Unfiltered		LAS
OS-03	Primary	08/22/97	-73 ± 99	Unfiltered		LAS
OS-03	Primary	08/19/98	63.1 ± 130	Unfiltered		TN
OS-04	Primary	09/13/89	71.2 ± 135	Unfiltered		UST
OS-04	Split	09/13/89	<1000	Unfiltered		TMA
OS-04	Primary	12/11/90	-26.8 ± 208	Unfiltered		IT
OS-04	Primary	06/09/92	169 ± 488	Unfiltered		CEP
OS-04	Primary	06/22/93	-385 ± 500	Unfiltered		CEP
OS-04	Primary	08/23/93	-477 ± 500	Unfiltered		CEP
OS-04	Primary	02/23/94	-70 ± 130	Unfiltered		LAS
OS-04	Primary	08/15/94	-80 ± 120	Unfiltered		LAS
OS-04	Primary	02/06/95	-20 ± 200	Unfiltered		LAS

RESULTS OF ANALYSES FOR TRITIUM IN GROUNDWATER Boeing Santa Susana Field Laboratory Ventura County, California

Well Identifier	Sample Type	Date Sampled	Concentration (picoCuries per liter)	Sample Handling	Sample Comments	Laboratory
Calleguas	Primary	12/14/90	117 ± 230	Unfiltered		IT
Calleguas	Primary	03/12/92	<500	Unfiltered		CEP

RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING RADIONUCLIDES IN GROUNDWATER SAMPLES

Boeing Santa Susana Field Laboratory

Well	Sample	Date	Radionuclide(s)	Concentration	Sample	
Identifier	Туре	Sampled	Detected	(picoCuries	Handling	Lab
Ob all and 16				per liter)	<u> </u>	
Shallow V SH-11		10/17/89	ND		Filtered	UST
SH-11	Primary Primary	10/17/89	ND		Unfiltered	UST
SH-11	Primary	10/31/89	ND ND		Filtered	UST
RS-05	Primary	10/31/89	ND		Unfiltered	UST
RS-05	Primary	10/31/89	ND		Filtered	UST
RS-11	Primary	12/06/90	ND		Filtered	IT
RS-11	Primary	03/04/91	ND		Filtéred	iT
RS-11	Primary	12/07/91	ND	***	Filtered	IT
RS-11	Primary	03/05/92	ND		Filtered	CEP
RS-11	Primary	02/06/99	ND		Filtered	TN
RS-11	Primary	02/15/00	ND		Filtered	TR
RS-11	Primary	02/06/01	ND		Filtered	ES
RS-16	Primary	03/09/92	ND		Filtered	CEP
RS-17	Primary	12/10/90	ND		Filtered	IT
RS-17	Primary	12/07/91	ND		Filtered	iΤ
RS-17	Primary	12/05/92	ND		Filtered	CEP
RS-18	Primary	03/10/91	ND		Filtered	IT IT
RS-18	Duplicate	03/10/91	ND		Filtered	iT
RS-18	Primary	03/04/92	ND	-	Filtered	CEP
RS-18	Primary	09/10/92	K-40	29 ± 6	Filtered	CEP
RS-18	Primary	12/15/92	ND		Filtered	CEP
RS-18	Split	12/15/92	ND	<5.2	Filtered	BL
RS-18	Primary	06/23/93	ND		Filtered	CEP
RS-18	Primary	11/06/93	ND		Filtered	LAS
RS-18	Primary	05/04/94	ND		Filtered	LAS
RS-18	Primary	02/17/95	ND		Filtered	LAS
RS-18	Primary	08/10/95	ND		Filtered	LAS
RS-18	Primary	05/16/96	ND		Filtered	LAS
RS-18	Primary	02/03/97	ND		Filtered	LAS
RS-18	Primary	02/05/98	ND	***	Filtered	TN
RS-18	Primary	08/05/98	ND	***	Filtered	TN
RS-18	Primary	05/12/99	ND		Filtered	TN
RS-18	Primary	05/09/00	ND	***	Filtered	TR
RS-18	Primary	02/19/01	ND		Filtered	ES
RS-27	Primary	03/04/91	ND		Filtered	CEP
RS-28	Primary	10/19/89	ND		Filtered	UST
RS-28	Primary	11/01/89	ND		Unfiltered	UST
RS-28	Primary	11/01/89	ND		Filtered	UST
RS-28	Primary	12/06/90	ND	*	Filtered	IT
RS-28	Primary	03/09/91	ND		Filtered	IT
RS-28	Primary	12/06/91	ND		Filtered	IT

RADIONUCLIDES IN GROUNDWATER SAMPLES

Boeing Santa Susana Field Laboratory

Well	Sample	Date	Radionuclide(s)	Concentration	Sample	
Identifier	Туре	Sampled	Detected	(picoCuries	Handling	Lab
		·		per liter)		
HAR-14	Primary	09/12/89	ND		Unfiltered	UST
HAR-14	Primary	09/12/89	ND		Filtered	UST
HAR-14	Split	09/12/89	ND		Filtered	TMA
HAR-14	Split	09/12/89	ND		Unfiltered	TMA
	th Formation Wells					
RD-06	Primary	10/18/89	ND		Unfiltered	UST
RD-06	Primary	10/31/89	ND		Unfiltered	UST
RD-06	Primary	10/31/89	ND		Filtered	UST
RD-06	Primary	03/06/91	ND		Filtered	IT
RD-06	Primary	03/10/92	ND		Filtered	CEP
RD-07	Primary	12/05/90	ND		Filtered	(T
RD-07	Primary	03/09/91	ND		Filtered	IT
RD-07	Primary	12/07/91	ND		Filtered	IT
RD-07	Primary	03/06/92	ND	***	Filtered	CEP
RD-07	Primary	08/25/97	ND		Filtered	LAS
RD-07	Primary	08/25/97	ND		Unfiltered	LAS
RD-07	Primary	02/06/99	ND		Filtered	TN
RD-07	Primary	03/16/00	ND		Filtered	TR
RD-07	Primary	02/23/01	ND ·		Filtered	ES
RD-07	Primary	02/22/02	ND		Filtered	DL
RD-10	Primary	03/06/91	ND		Filtered	IT
RD-10	Primary	03/07/92	ND		Filtered	CEP
RD-13	Primary	09/12/89	ND		Unfiltered	UST
RD-13	Primary	09/12/89	ND		Filtered	UST
RD-13	Split	09/12/89	ND		Unfiltered	TMA
RD-13	Split	09/12/89	ND		Filtered	TMA
RD-13	Primary	10/17/89	ND		Filtered	UST
RD-13	Primary	10/31/89	ND		Filtered	UST
RD-13	Primary	12/06/90	ND		Filtered	IT
RD-13	Primary	03/08/91	ND		Filtered	IT
RD-13	Primary	12/10/91	ND		Filtered	IT
RD-13	Primary	03/12/92	ND		Filtered	CEP
RD-13	Primary	08/26/97	ND		Filtered	LAS
RD-13	Primary	08/26/97	ND		Unfiltered	LAS
RD-14	Primary	10/18/89	ND	400	Unfiltered	UST
RD-14	Primary	10/18/89	ND		Filtered	UST
RD-14	Primary	10/31/89	ND		Unfiltered	UST
RD-14	Primary	10/31/89	ND		Filtered	UST
RD-14	Primary	12/07/90	ND		Filtered	ΙΤ
RD-14	Primary	03/09/91	ND		Filtered	iΤ
RD-14	Primary	12/06/91	ND		Filtered	IT
RD-14	Primary	03/05/92	ND		Filtered _	CEP _

TABLE E-3
RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING RADIONUCLIDES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Radionuclide(s) Detected	Concentration (picoCuries per liter)	Sample Handling	Lab
RD-20	Primary	03/05/91	ND		Filtered	IT
RD-20	Primary	12/10/91	ND	-	Filtered	IT
RD-20	Primary	03/04/92	ND		Filtered	CEP
RD-21	Primary	10/31/89	ND		Filtered	UST
RD-21	Primary	12/03/90	ND		Filtered	IT
RD-21	Primary	03/08/91	ND		Filtered	IT
RD-21	Primary	12/05/91	ND		Filtered	IT
RD-21	Primary	03/04/92	ND		Filtered	CEP
RD-21	Primary	03/06/93	ND		Filtered	CEP
RD-21	Primary	06/22/93	ND		Filtered	CEP
RD-21	Primary	08/06/93	ND		Filtered	CEP
RD-21	Primary	11/06/93	ND		Filtered	LAS
RD-21	Primary	02/25/94	ND		Filtered	LAS
RD-21	Primary	08/08/94	ND		Filtered	LAS
RD-21	Primary	02/08/95	ND		Filtered	LAS
RD-21	Primary	08/31/95	ND		Filtered	LAS
RD-21	Primary	02/16/96	ND		Filtered	LAS
RD-21	Primary	08/18/96	ND		Filtered	LAS
RD-21	Primary	02/06/97	ND		Filtered	LAS
RD-21	Primary	02/09/98	ND		Filtered	TN
RD-21	Primary	02/16/99	ND		Filtered	TN
RD-21	Primary	03/15/00	ND		Filtered	TR
RD-21	Primary	10/24/01	ND		Filtered	DL
RD-21	Primary	03/06/02	ND		Filtered	DL
RD-22	Primary	10/19/89	ND		Filtered	UST
RD-22	Primary	12/04/90	ND		Filtered	ίΤ
RD-22	Duplicate	12/04/90	ND		Filtered	IT
RD-22	Primary	03/11/91	ND		Filtered	IT
RD-22	Primary	12/06/91	ND		Filtered	iΤ
RD-22	Primary	06/05/92	ND		Filtered	CEP
RD-22	Primary	03/20/93	ND		Filtered	CEP
RD-22	Primary	06/22/93	ND		Filtered	CEP
RD-22	Primary	08/05/93	ND		Filtered	CEP
RD-22	Primary	11/21/93	ND		Filtered	LAS
RD-22	Primary	02/24/94	ND		Filtered	LAS
RD-22	Primary	08/09/94	ND		Filtered	LAS
RD-22	Primary	02/17/95	ND		Filtered	LAŚ
RD-22	Primary	08/29/95	ND		Filtered	LAS
RD-22	Primary	02/16/96	ND	***	Filtered	LAS
RD-22	Primary	08/18/96	ND	***	Filtered	LAS
RD-22	Primary	02/26/97	ND	***	Filtered	LAS
RD-22	Primary	05/28/98	ND		Filtered	TN

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RADIONUCLIDES IN GROUNDWATER SAMPLES

Boeing Santa Susana Field Laboratory

Ventura County, California

Well	Sample	Date	Radionuclide(s)	Concentration	Sample	
Identifier	Type	Sampled	Detected	(picoCuries	Handling	Lab
		<u>·</u>		per liter)		
RD-24	Primary	02/07/97	ND	***	Filtered	LAS
RD-24	Primary	02/18/98	ND		Filtered	TN
RD-24	Primary	05/05/98	ND		Filtered	TN
RD-24	Primary	02/02/99	ND		Filtered	TN
RD-24	Primary	08/11/99	ND	***	Filtered	TN
RD-24	Primary	02/03/00	ND		Filtered	TR
RD-24	Primary	08/04/00	ND .		Filtered	TR
RD-24	Primary	02/06/01	ND		Filtered	ES
RD-24	Primary	02/25/02	ND		Filtered	DL
RD-24	Primary	11/06/02	ND		Filtered	ES
RD-25	Primary	09/12/89	ND		Unfiltered	UST
RD-25	Primary	09/12/89	ND		Filtered	UST
RD-25	Split	09/12/89	ND	40-10-17	Unfiltered	TMA
RD-25	Split	09/12/89	ND		Filtered	TMA
RD-25	Primary	10/31/89	ND		Unfiltered	UST
RD-25	Primary	12/05/90	ND		Filtered	IT
RD-25	Primary	03/06/91	ND		Filtered	ΙΤ
RD-25	Primary	12/10/91	ND		Filtered	IT
RD-25	Primary	03/06/92	ND		Filtered	CEP
RD-25	Primary	02/28/94	ND		Filtered	LAS
RD-25	Primary	08/17/94	ND		Filtered	LAS
RD-25	Primary	02/09/95	ND		Filtered	LAS
RD-25	Primary	08/18/95	ND		Filtered	LAS
RD-25	Primary	02/06/96	ND		Filtered	LAS
RD-25	Primary	08/20/96	ND	***	Filtered	LAS
RD-25	Primary	02/07/97	ND	***	Filtered	LAS
RD-25	Primary	08/21/97	ND		Filtered	LAS
RD-25	Primary	02/05/98	ND	***	Filtered	TN
RD-25	Primary	08/18/98	ND	***	Filtered	TN
RD-25	Primary	02/16/99	ND	-	Filtered	TN
RD-25	Primary	08/19/99	ND		Filtered	TN
RD-25	Primary	02/16/00	ND		Filtered	TR
RD-25	Primary	08/09/00	ND		Filtered	TR
RD-25	Primary	02/07/01	ND		Filtered	ES
RD-25	Primary	10/25/01	ND		Filtered	DL
RD-25	Primary	03/07/02	ND		Filtered	DL
RD-25	Primary	11/06/02	ND		Filtered	ES
RD-26	Primary	10/31/89	ND		Unfiltered	UST
RD-26	Primary	12/04/90	ND	***	Filtered	IT
RD-26	Primary	03/07/91	ND		Filtered	IT
RD-26	Primary	03/11/91	ND		Filtered	CEP

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TABLE E-3
RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING
RADIONUCLIDES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

Well	Sample	Date	Radionuclide(s)	Concentration (picoCuries	Sample	Lab
Identifier	Туре	Sampled	Detected	per liter)	Handling	Lau
RD-28	Primary	08/09/00	ND		Filtered	TR
RD-28	Primary	02/07/01	ND		Filtered	ES
RD-28	Primary	10/25/01	ND		Filtered	DL
RD-28	Primary	02/25/02	ND		Filtered	DL
RD-28	Primary	11/06/02	ND		Filtered	ES
RD-29	Primary	10/18/89	ND		Filtered	UST
RD-29	Primary	10/31/89	ND		Filtered	UST
RD-29	Primary	12/06/90	ND		Filtered	IT
RD-29	Duplicate	12/06/90	ND		Filtered	IT
RD-29	Primary	03/05/91	N D		Filtered	IT
RD-29	Primary	12/10/91	ND		Filtered	IT
RD-29	Split	12/10/91	ND		Filtered	CEP
RD-29	Primary	03/03/92	ND		Filtered	CEP
RD-29	Primary	03/05/93	ND		Filtered	CEP
RD-29	Primary	02/26/94	ND		Filtered	LAS
RD-29	Primary	05/09/01	ND		Filtered	ES
RD-29	Primary	05/03/02	ND		Filtered	DL
RD-30	Primary	10/19/89	ND		Filtered	UST
RD-30	Primary	06/29/90	ND		Filtered	UST
RD-30	Primary	12/06/90	ND		Filtered	IT
RD-30	Primary	03/09/91	ND		Filtered	IT
RD-30	Primary	12/06/91	ND		Filtered	IT
RD-30	Primary	06/03/92	ND		Filtered	CEP
RD-30	Split	06/03/92	ND		Filtered	TEL
RD-30	Primary	03/21/93	ND		Filtered	CEP
RD-30	Primary	02/26/94	ND		Filtered	LAS
RD-30	Primary	08/09/94	ND		Filtered	LAS
RD-30	Primary	02/08/95	ND		Filtered	LAS
RD-30	Primary	08/19/95	ND		Filtered	LAS
RD-30	Primary	02/28/96	ND		Filtered	LAS
RD-30	Primary	08/20/96	ND		Filtered	LAS
RD-30	Primary	02/25/97	ND		Filtered	LAS
RD-30	Primary	08/27/97	ND		Filtered	LAS
RD-30	Primary	08/27/97	ND		Unfiltered	LAS
RD-30	Primary	05/28/98	ND		Filtered	TN
RD-30	Primary	08/05/98	ND		Filtered	TN
RD-30	Primary	02/05/99	ND		Filtered	TN
RD-30	Primary	05/05/00	ND		Filtered	TR
RD-30	Primary	08/08/00	ND		Filtered	TR
RD-30	Primary	05/09/01	ND		Filtered	ES
RD-30	Primary	11/09/01	ND		Filtered	DL
RD-30	Primary	03/11/02	ND		Filtered	DL

RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING RADIONUCLIDES IN GROUNDWATER SAMPLES

Boeing Santa Susana Field Laboratory

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Well	Sample	Date	Radionuclide(s)	Concentration	Sample	
Identifier	Туре	Sampled	Detected	(picoCuries	Handling	Lab
				per liter)		
RD-33B	Primary	08/09/95	ND		Filtered	LAS
RD-33B	Primary	02/19/96	ND		Filtered	LAS
RD-33B	Primary	08/23/96	ND		Filtered	LAS
RD-33B	Primary	02/25/97	ND		Filtered	LAS
RD-33B	Primary	08/22/97	ND		Filtered	LAS
RD-33B	Primary	05/27/98	ND		Filtered	TN
RD-33B	Primary	08/17/98	ND		Filtered	TN
RD-33B	Primary	02/03/99	ND		Filtered	TN
RD-33B	Primary	02/09/00	ND		Filtered	TR
RD-33B	Primary	02/17/01	ND		Filtered	ES
RD-33B	Primary	02/15/02	ND		Filtered	DL
RD-33C	Primary	12/05/91	ND		Filtered	IT
RD-33C	Primary	12/12/91	ND	•**	Filtered	IT
RD-33C	Split	12/12/91	ND		Filtered	CEP
RD-33C	Primary	06/08/92	ND		Filtered	CEP
RD-33C	Primary	09/15/92	ND		Filtered	CEP
RD-33C	Primary	12/05/92	ND	***	Filtered	CEP
RD-33C	Primary	08/24/93	ND		Filtered	CEP
RD-33C	Primary	02/27/94	ND		Filtered	LAS
RD-33C	Primary	05/09/94	ND		Filtered	LAS
RD-33C	Primary	05/09/94	ND		Unfiltered	LAS
RD-33C	Primary	08/17/94	ND		Filtered	LAS
RD-33C	Primary	02/07/95	ND		Filtered	LAS
RD-33C	Primary	08/09/95	ND		Filtered	LAS
RD-33C	Primary	02/19/96	ND		Filtered	LAS
RD-33C	Primary	08/22/96	ND		Filtered	LAS
RD-33C	Primary	02/25/97	ND		Filtered	LAS
RD-33C	Primary	08/21/97	ND		Filtered	LAS
RD-33C	Primary	05/27/98	ND		Filtered	TN
RD-33C	Primary	08/17/98	ND		Filtered	TN
RD-33C	Primary	02/03/99	ND		Filtered	TN
RD-33C	Primary	02/09/00	ND		Filtered	TR
RD-33C	Primary	02/17/01	ND		Filtered	ES
RD-33C	Primary	02/15/02	ND		Filtered	DL
RD-34A	Primary	12/05/91	ND		Filtered	IT
RD-34A	Split	12/05/91	ND		Filtered	CEP
RD-34A	Primary	03/10/92	ND		Filtered	CEP
RD-34A	Split	03/10/92	ND		Filtered	TEL
RD-34A	Primary	06/08/92	ND		Filtered	CEP
RD-34A	Primary	09/13/92	ND		Filtered	CEP
RD-34A	Split	09/13/92	ND	<24	Filtered	BL
RD-34A	Primary	12/05/92	ND		Filtered	CEP
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RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING RADIONUCLIDES IN GROUNDWATER SAMPLES

Boeing Santa Susana Field Laboratory

Well	Sample ·	Date	Radionuclide(s)	Concentration (picoCuries	Sample	Lab
Identifier	Туре	Sampled	Detected	per liter)	Handling	Lab
RD-34B	Primary	02/05/00	ND		Filtered	TR
RD-34B	Primary	02/16/01	ND		Filtered	ES
RD-34B	Primary	02/15/02	ND		Filtered	DL
RD-34C	Primary	12/06/91	ND		Filtered	IT
RD-34C	Primary ·	03/10/92	ND		Filtered	CEP
RD-34C	Split	03/10/92	ND		Filtered	TEL
RD-34C	Primary	06/08/92	ND		Filtered	CEP
RD-34C	Primary	09/13/92	ND		Filtered	CEP
RD-34C	Split	09/13/92	ND	<29	Filtered	BL
RD-34C	Primary	12/05/92	ND		Filtered	CEP
RD-34C	Primary	03/09/93	ND		Filtered	CEP .
RD-34C	Primary	08/24/93	ND		Filtered	CEP
RD-34C	Primary	02/26/94	ND		Filtered	LAS
RD-34C	Primary	05/09/94	ND		Filtered	LAS
RD-34C	Primary	05/09/94	ND		Unfiltered	LAS
RD-34C	Primary	08/09/94	ND		Filtered	LAS
RD-34C	Primary	02/07/95	ND		Filtered	LAS
RD-34C	Primary	08/10/95	ND		Filtered	LAS
RD-34C	Primary	02/19/96	ND		Filtered	LAS
RD-34C	Primary	08/19/96	ND		Filtered	LAS
RD-34C	Primary	02/07/97	ND		Filtered	LAS
RD-34C	Primary	08/21/97	ND		Filtered	LAS
RD-34C	Primary	05/27/98	ND		Filtered	TN
RD-34C	Primary	08/17/98	ND		Filtered	TN
RD-34C	Primary	02/04/99	ND		Filtered	TN
RD-34C	Primary	02/05/00	ND		Filtered	TR
RD-34C	Primary	02/16/01	ND		Filtered	ES
RD-34C	Primary	02/14/02	ND		Filtered	DL
RD-35B	Primary	05/07/99	ND		Filtered	TN
RD-38B	Primary	02/17/99	ND		Filtered	TN
RD-44	Primary	08/24/97	ND	***	Filtered	LAS
RD-45C	Primary	10/06/94	ND		Filtered	LAS
RD-46B	Primary	02/15/99	ND		Filtered	TN
RD-47	Primary	08/24/97	ND		Filtered	LAS
RD-50	Primary	05/05/94	ND		Filtered	LAS
RD-50	Primary	05/19/95	ND		Filtered	LAS
RD-50	Primary	05/14/96	ND		Filtered	LAS
RD-50	Primary	05/05/97	ND		Filtered	LAS
RD-50	Primary	05/28/98	ND		Filtered	TN
RD-51C	Primary	12/14/91	ND		Filtered	IT
RD-51C	Primary	03/06/92	ND		Filtered	CEP

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Well	Sample	Date	Radionuclide(s)	Concentration	Sample	
Identifier	Type	Sampled	Detected	(picoCuries	Handling	Lab
				per liter)		
RD-54C	Primary	11/02/01	ND		Filtered	DL
RD-54C	Primary	02/27/02	ND		Filtered	DL
RD-56A	Primary	05/10/94	ND		Filtered	LAS
RD-56A	Primary	05/28/98	ND		Filtered	TN
RD-56B	Primary	05/28/98	ND ·		Filtered	TN
RD-57	Primary	03/16/94	ND		Filtered	LAS
RD-57	Primary	05/10/94	ND		Filtered	LAS
RD-57	Primary	08/18/94	ND		Filtered	LAS
RD-57	Primary	02/07/95	ND		Filtered	LAS
RD-57	Primary	08/09/95	ND		Filtered	LAS
RD-57	Primary	02/19/96	ND		Filtered	LAS
RD-57	Primary	08/22/96	ND	***	Filtered	LAS
RD-57	Primary	02/25/97	ND		Filtered	LAS
RD-57	Primary	08/27/97	ND		Filtered	LAS
RD-57	Primary	08/27/97	ND		Unfiltered	LAS
RD-57	Primary	05/26/98	ND		Filtered	TN
RD-57	Primary	08/17/98	ND		Filtered	TN
RD-57	Primary	05/13/99	ND		Filtered	TN
RD-57	Primary	02/09/00	ND		Filtered	TR
RD-57	Primary	05/11/01	ND		Filtered	ES
RD-57	Primary	02/14/02	ND		Filtered	DL
RD-59A	Primary	08/16/94	ND		Filtered	LAS
RD-59A	Primary	02/06/95	ND		Filtered	LAS
RD-59A	Duplicate	02/06/95	ND		Filtered	LAS
RD-59A	Primary	08/08/95	ND		Filtered	LAS
RD-59A	Primary	03/12/96	ND		Filtered	LAS
RD-59A	Primary	08/21/96	ND		Filtered	LAS
RD-59A	Primary	02/16/97	ŃD	•••	Filtered	LAS
RD-59A	Primary	08/22/97	ND		Filtered	LAS
RD-59A	Primary	08/19/98	ND		Filtered	TN
RD-59A	Primary	02/16/99	ND		Filtered	TN
RD-59A	Primary	03/14/00	ND		Filtered	TR
RD-59A	Primary	05/16/01	ND		Filtered	ES
RD-59A	Primary	02/28/02	ND		Filtered	DL
RD-59B	Primary	08/16/94	ND		Filtered	LAS
RD-59B	Primary	02/06/95	ND		Filtered	LAS
RD-59B	Primary	08/08/95	ND		Filtered	LAS
RD-59B	Primary	03/12/96	ND		Filtered	LAS
RD-59B	Primary	08/21/96	ND		Filtered	LAS
RD-59B	Primarý	02/16/97	ND		Filtered	LAS
RD-59B	Primary	08/22/97	ND		Filtered	LAS
RD-59B	Primary	08/19/98	ND	**-	Filtered	TN

TABLE E-3
RESULTS OF ANALYSES FOR MAN-MADE*, GAMMA-EMITTING
RADIONUCLIDES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

Well Identifier	Sample Type	Date Sampled	Radionuclide(s) Detected	Concentration (picoCuries per liter)	Sample Handling	Lab
OS-01	Primary	12/17/92	ND	por inc.,	Filtered	CEP
OS-01	Primary	08/23/93	ND _	*	Filtered	CEP
OS-01	Primary	02/23/94	ND		Filtered	LAS
OS-01	Primary	08/15/94	ND		Filtered	LAS
OS-02	Primary	12/11/90	ND		Filtered	IT
OS-02	Primary	03/08/91	ND	-	Filtered	· IT
OS-02	Duplicate	03/08/91	ND	May 1941 1940	Filtered	IT
OS-02	Primary	12/09/91	ND	***	Filtered	IT
OS-02	Primary	06/09/92	ND		Filtered	CEP
OS-02	Primary	09/15/92	ND		Filtered	CEP
OS-02	Primary	12/17/92	ND		Filtered	CEP
OS-02	Primary	08/23/93	ND		Filtered	CEP
OS-02	Primary	02/23/94	ND		Filtered	LAS
OS-02	Primary	08/15/94	ND		Filtered	LAS
OS-03	Primary	12/11/90	ND		Filtered	IT
OS-03	Primary	03/08/91	ND		Filtered	IT
OS-03	Primary	12/09/91	ND		Filtered	IT
OS-03	Primary	06/09/92	ND		Filtered	CEP
OS-03	Primary	08/23/93	ND		Filtered	CEP
OS-03	Primary	02/23/94	ND		Filtered	LAS
OS-03	Primary	08/15/94	ND _		Filtered	LAS
OS-04	Primary	12/11/90	ND	e=-	Filtered	IT
OS-04	Primary	06/09/92	ND		Filtered	CEP
OS-04	Primary	06/22/93	ND		Filtered	CEP
OS-04	Primary	08/23/93	ND		Filtered	CEP
OS-04	Primary	02/23/94	ND		Filtered	LAS
OS-04	Primary	08/15/94	ND		Filtered	LAS
OS-05	Primary	12/11/90	ND		Filtered	IT
OS-05	Primary	03/08/91	ND		Filtered	IT
OS-05	Primary	12/09/91	ND	==-	Filtered	IT
OS-05	Primary	06/09/92	ND		Filtered	CEP
OS-05	Primary	09/15/92	ND	***	Filtered	CEP
OS-05	Split	09/15/92	ND	<32	Filtered	BL
OS-05	Primary	12/17/92	ND	***	Filtered	CEP
OS-05	Primary	08/23/93	ND		Filtered	CEP
OS-05	Primary	02/23/94	ND		Filtered	LAS
OS-08	Primary	06/09/92	ND .		Filtered	CEP
OS-08	Primary	08/15/94	ND		Filtered	LAS
OS-10	Primary	12/09/91	ND		Filtered	ĬΤ
OS-10	Primary	08/05/94	ND		Filtered	LAS
OS-15	Primary	12/10/91	ND		Filtered	IT

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(*)	=	Man-made gamma-emitting radionuclides include cobalt-57, cobalt-60, cesium-134 and cesium-137.
ND	=	No gamma-emitting radionuclides detected above minimum detectable activities.
()	=	See ND.
BL	=	Barringer Laboratories, Inc., Golden, Colorado.
CEP	=	Controls for Environmental Pollution, Santa Fe, New Mexico.
DL	=	Davi Laboratories, Pinole, California.
ES	=	Eberline Services (formerly Thermo Retec), Richmond, California.
IT.	=	International Technologies Analytical Services (formerly UST), Richland, Washington.
LAS	=	LAS Laboratories, Inc. (formerly Lockheed Martin), Las Vegas, Nevada.
TEL	=	Teledyne Isotopes, Westwood, New Jersey.
TMA	=	Thermoanalytical, Inc. (TMA/NORCAL), Richmond, California.
TN	=	Thermo NUtech, Richmond, California.
TR	=	Thermo Retec (formerly Thermo NUtech), Richmond, California.
UST	=	United States Testing Laboratory, Richland, Washington.
Primary	=	Primary sample
Duplicate	=	Sample duplicate
Split	=	Sample split

NOTE: Samples analyzed for gamma-emitting radionuclides by EPA Method 901.1

TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE TYPE	DATE SAMPLED	ISOTOPE	CONCENTRATION (picocuries per liter)	SAMPLE HANDLING	LABORATORY
RS-05	Primary	10/31/89	Radium-228	2.19 ± 0.657	Unfiltered	UST
RS-05	Primary	10/31/89	Radium-228	1.16 ± 0.487	Filtered	UST
RS-05	Primary	10/31/89	Thorium-228	1.20 ± 0.463	Unfiltered	UST
RS-05	Primary	10/31/89	Thorium-228	0.0345 ± 0.0346	Filtered	UST
RS-05	Primary	10/31/89	Thorium-230	0.917 ± 0.309	Unfiltered	UST
RS-05	Primary	10/31/89	Thorium-230	0.00827 ± 0.0117	Filtered	UST
RS-05	Primary	10/31/89	Thorium-232	1.68 ± 0.440	Unfiltered	UST
RS-05	Primary	10/31/89	Thorium-232	0.0393 ± 0.0202	Filtered	UST
RS-08	Primary	03/18/93	Radium-226	3 ± 2.3	Filtered	CEP
RS-08	Primary	03/18/93	Radium-228	<1	Filtered	CEP
RS-08	Primary	06/08/93	Radium-226	2.4 ± 1.0	Filtered	CEP
RS-08	Primary	08/09/93	Radium-226	<0.6	Filtered	CEP
RS-08	Primary	11/08/93	Radium-226	0.09 ± 0.13	Filtered	CEP
RS-08	Primary	11/08/93	Uranium-233/234 (dissolved)	15.0 ± 2.0	Filtered	LAS
RS-08	Primary	11/08/93	Uranium-235 (dissolved)	0.62 ± 0.32	Filtered	LAS
RS-08	Primary	11/08/93	Uranium-238 (dissolved)	14.6 ± 1.9	Filtered	LAS
RS-18	Primary	03/04/92	Uranium-234	2.75 ± 0.62	Unfiltered	CEP
RS-18	Primary	03/04/92	Uranium-235	<0.6	Unfiltered '	CEP
RS-18	Primary	03/04/92	Uranium-238	3.60 ± 0.70	Unfiltered	CEP
RS-18	Primary	09/10/92	Radium-226	3.5 ± 2.0	Filtered	CEP
RS-18	Primary	09/10/92	Radium-228	<1	Filtered	CEP
RS-18	Primary	09/10/92	Uranium-234	36.6 ± 6.0	Unfiltered	CEP
RS-18	Primary	09/10/92	Uranium-235	1.80 ± 0.90	Unfiltered	CEP
RS-18	Primary	09/10/92	Uranium-238	41.9 ± 6.6	Unfiltered	CEP
RS-18	Primary	12/15/92	Uranium-234	5.17 ± 0.69	Unfiltered	CEP
RS-18	Primary	12/15/92	Uranium-235	<0.6	Unfiltered	CEP
RS-18	Primary	12/15/92	Uranium-238	5.67 ± 0.77	Unfiltered	CEP
RS-18	Primary	12/15/92	Thorium-228	<0.6	Filtered	CEP
RS-18	Primary	12/15/92	Thorium-230	<0.6	Filtered	CEP
RS-18	Primary	12/15/92	Thorium-232	<0.6	Filtered	CEP
RS-18	Primary	06/23/93	Uranium-234	1.8 ± 3	Filtered	CEP
RS-18	Primary	06/23/93	Uranium-235	0.1 ± 0.1	Filtered	CEP
RS-18	Primary	06/23/93	Uranium-236	2.1 ± 0.4	Filtered	CEP

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TABLE E-4RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES Boeing Santa Susana Field Laboratory Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
	TYPE	SAMPLED		(picocuries per liter)	HANDLING	
RS-18	Primary	02/03/97	Uranium-233/234	14.2 ± 1.3	Filtered	LAS
RS-18	Primary	02/03/97	Uranium-235	0.53 ± 0.21	Filtered	LAS
RS-18	Primary	02/03/97	Uranium-238	13.9 ± 1.3	Filtered	LAS
RS-18	Primary	02/03/97	Thorium-228	0.1 ± 0.17	Filtered	LAS
RS-18	Primary	02/03/97	Thorium-230	0.009 ± 0.043	Filtered	LAS
RS-18	Primary	02/03/97	Thorium-232	-0.009 ± 0.034	Filtered	LAS
RS-18	Primary	02/05/98	Uranium-233/234	14.2 ± 0.94	Filtered	TN
RS-18	Primary	02/05/98	Uranium-235	0.943 ± 0.17	Filtered	TN
RS-18	Primary	02/05/98	Uranium-238	12.9 ± 0.88	Filtered	TN
RS-18	Primary	02/05/98	Thorium-228	-0.009 ± 0.023	Filtered	TN
RS-18	Primary	02/05/98	Thorium-230	<0.138	Filtered	TN
RS-18	Primary	02/05/98	Thorium-232	0 ± 0.012	Filtered	TN
RS-18	Primary	08/05/98	Thorium-228	0.014 ± 0.019	Filtered	TN
RS-18	Primary	08/05/98	Thorium-230	<0.080	Filtered	TN
RS-18	Primary	08/05/98	Thorium-232	0.005 ± 0.019	Filtered	TN
RS-18	Primary	08/05/98	Uranium-233/234	13.7 ± 0.72	Filtered	TN
RS-18	Primary	08/05/98	Uranium-235	0.793 ± 0.13	Filtered	TN
RS-18	Primary	08/05/98	Uranium-238	13.3 ± 0.71	Filtered	TN
RS-18	Primary	05/09/00	Thorium-228	<0.166	Filtered	TR
RS-18	Primary	05/09/00	Thorium-230	<0.219	Filtered	TR
RS-18	Primary	05/09/00	Thorium-232	0.037 ± 0.050	Filtered	TR
RS-18	Primary	05/09/00	Uranium-233/234	15.1 ± 0.97	Filtered	TR
RS-18	Primary	05/09/00	Uranium-235	0.795 ± 0.19	Filtered	TR
RS-18	Primary	05/09/00	Uranium-238	13.2 ± 0.89	Filtered	TŘ
RS-18	Primary	02/19/01	Thorium-228	0.04 ± 0.081	Filtered	ES
RS-18	Primary	02/19/01	Thorium-230	0.00 ± 0.069	Filtered	ES
RS-18	Primary	02/19/01	Thorium-232	0.00 ± 0.035	Filtered	ES
RS-18	Primary	02/19/01	Uranium-233/234	8.4 ± 0.38	Filtered	ES
RS-18	Primary	02/19/01	Uranium-235	0.442 ± 0.072	Filtered	ES
RS-18	Primary	02/19/01	Uranium-238	7.89 ± 0.36	Filtered	ES
RS-28	Primary	11/01/89	Uranium-234	4.59 ± 0.181	Filtered	UST
RS-28	Primary	11/01/89	Uranium-235	0.153 ± 0.0139	Filtered	UST
RS-28	Primary	11/01/89	Uranium-238	4.24 ± 0.147	Filtered	UST

See last page of Table E-4 for footnotes and explanations. Haley & Aldrich

TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE TYPE	DATE SAMPLED	ISOTOPE	CONCENTRATION	SAMPLE HANDLING	LABORATORY
DO E4			Unani: 020	(picocuries per liter)		741
RS-54	Primary	08/04/98	Uranium-238	7.24 ± 0.45	Filtered	TN
RS-54	Primary	02/02/99	Thorium-228	0.012 ± 0.020	Filtered	TN
RS-54	Primary	02/02/99	Thorium-230	0.034 ± 0.040	Filtered	TN
RS-54	Primary	02/02/99	Thorium-232	-0.002 ± 0.008	Filtered	TN
RS-54	Primary	02/02/99	Uranium-233/234	11.7 ± 0.75	Filtered	TN
RS-54	Primary	02/02/99	Uranium-235	0.745 ± 0.15	Filtered	TN
RS-54	Primary	02/02/99	Uranium-238	10.7 ± 0.70	Filtered	TN
RS-54	Primary	08/18/99	Thorium-228	0.030 ± 0.12	Filtered	TN
RS-54	Primary	08/18/99	Thorium-230	0.112 ± 0.12	Filtered	TN
RS-54	Primary	08/18/99	Thorium-232	0 ± 0.041	Filtered	TN
RS-54	Primary	08/18/99	Uranium-233/234	15.7 ± 1.1	Filtered	TN
RS-54	Primary	08/18/99	Uranium-235	1.23 ± 0.25	Filtered	TN
RS-54	Primary	08/18/99	Uranium-238	14.0 ± 1.0	Filtered	TN
RS-54	Primary	03/15/00	Thorium-228	0 ± 0.091	Filtered	TR
RS-54	Primary	03/15/00	Thorium-230	1.28 ± 0.31 B	Filtered	TR
RS-54	Primary	03/15/00	Thorium-232	0.060 ± 0.091	Filtered	TR
RS-54	Primary	03/15/00	Uranium-233/234	9.08 ± 0.90	Filtered	TR
RS-54	Primary	03/15/00	Uranium-235	0.486 ± 0.20	Filtered	TR
RS-54	Primary	03/15/00	Uranium-238	8.77 ± 0.87 B	Filtered	TR
RS-54	Primary	11/01/01	Thorium-228	0.00 ± 1.00	Filtered	DL
RS-54	Primary	11/01/01	Thorium-230	0.00 ± 1.00	Filtered	DL
RS-54	Primary	11/01/01	Thorium-232	0.00 ± 1.00	Filtered	DL
RS-54	Primary	11/01/01	Uranium-233/234	20.59 ± 0.39	Filtered	DL
RS-54	Primary	11/01/01	Uranium-235	0.72 ± 0.07	Filtered	DL
RS-54	Primary	11/01/01	Uranium-238	14.80 ± 0.33	Filtered	DL
RS-54	Primary	03/01/02	Thorium-228	0.43 ± 1.00	Filtered	DL
RS-54	Primary	03/01/02	Thorium-230	0 ± 1.00	Filtered	DL
RS-54	Primary	03/01/02	Thorium-232	0 ± 1.00	Filtered	DL
RS-54	Primary	03/01/02	Uranium-233/234	16.44 ± 5.00	Filtered	DL
RS-54	Primary	03/01/02	Uranium-235	0.66 ± 1.00	Filtered	DL
RS-54	Primary	03/01/02	Uranium-238	16.38 ± 5.00	Filtered	DL
RS-54	Primary	11/07/02	Thorium-228	0.033 ± 0.049	Filtered	ES
RS-54	Primary	11/07/02	Thorium-230	0.037 ± 0.057	Filtered	ES

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TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE TYPE	DATE SAMPLED	ISOTOPE	CONCENTRATION (picocuries per liter)	SAMPLE HANDLING	LABORATORY
RD-06	Primary	10/31/89	Uranium-235	0.143 ± 0.0508	Filtered	UST
RD-06	Primary	10/31/89	Uranium-238	1.08 ± 0.274	Unfiltered	UST
RD-06	Primary	10/31/89	Uranium-238	0.710 ± 0.193	Filtered	UST
RD-06	Primary	10/31/89	Radium-226	1.23 ± 0.268	Unfiltered	UST
RD-06	Primary	10/31/89	Radium-226	0.825 ± 0.202	Filtered	UST
RD-06	Primary	10/31/89	Thorium-228	0.0714 ± 0.0323	Unfiltered	UST
RD-06	Primary	10/31/89	Thorium-228	0.0428 ± 0.0360	Filtered	UST
RD-06	Primary	10/31/89	Thorium-230	0.00185 ± 0.00642	Unfiltered	UST
RD-06	Primary	10/31/89	Thorium-230	0.00196 ± 0.00392	Filtered	UST
RD-06	Primary	10/31/89	Thorium-232	0.00185 ± 0.00371	Unfiltered	UST
RD-06	Primary	10/31/89	Thorium-232	0.00 ± 0.00588	Filtered	UST
RD-06	Primary	03/16/93	Radium-226	<0.6	Filtered	UST
RD-06	Primary	03/16/93	Radium-228	<1	Filtered	UST
RD-06	Primary	06/07/93	Radium-226	3.5 ± 2.7	Filtered	CEP
RD-06	Primary	08/09/93	Radium-226	<0.6	Filtered	CEP
RD-06	Primary	11/22/93	Radium-226	1.32 ± 0.34	Filtered	LAS
RD-07	Primary	02/05/98	Uranium-233/234	5.46 ± 0.28	Filtered	TN
RD-07	Primary	02/05/98	Uranium-235	0.226 ± 0.048	Filtered	TN
RD-07	Primary	02/05/98	Uranium-238	4.87 ± 0.26	Filtered	TN
RD-07	Primary	02/05/98	Thorium-228	0.032 ± 0.032	Filtered	TN ·
RD-07	Primary	02/05/98	Thorium-230	0.040 ± 0.043	Filtered	TN
RD-07	Primary	02/05/98	Thorium-232	0 ± 0.005	Filtered	TN
RD-07	Primary	02/06/99	Thorium-228	0.026 ± 0.016	Filtered	TN
RD-07	Primary	02/06/99	Thorium-230	0.028 ± 0.040	Filtered	TN
RD-07	Primary	02/06/99	Thorium-232	0 ± 0.008	Filtered	TN
RD-07	Primary	02/06/99	Uranium-233/234	7.76 ± 0.51	Filtered	TN
RD-07	Primary	02/06/99	Uranium-235	0.414 ± 0.10	Filtered	TN
RD-07	Primary	02/06/99	Uranium-238	6.68 ± 0.45	Filtered	TN
RD-07	Primary	03/16/00	Thorium-228	-0.098 ± 0.14	Filtered	TR
RD-07	Primary	03/16/00	Thorium-230	0.644 ± 0.232 B	Filtered	TR
RD-07	Primary	03/16/00	Thorium-232	0.014 ± 0.028	Filtered	TR
RD-07	Primary	03/16/00	Uranium-233/234	4.37 ± 0.40	Filtered	TR
RD-07	Primary	03/16/00	Uranium-235	0.193 ± 0.092	Filtered	TR

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TABLE E-4RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
	TYPE	SAMPLED	ISOTOF E	(picocuries per liter)	HANDLING	LABORATORT
RD-14	Primary	10/31/89	Thorium-230	0.00388 ± 0.00550	Unfiltered	UST
RD-14	Primary	10/31/89	Thorium-232	0.00 ± 0.0142	Filtered	UST
RD-14	Primary	10/31/89	Thorium-232	0.0136 ± 0.0104	Unfiltered	UST
RD-14	Primary	10/31/89	Thorium-232	0.00410 ± 0.0153	Filtered	UST
RD-15	Primary	05/10/01	Uranium-233/234	4.81 ± 0.88	Filtered	ES
RD-15	Primary	05/10/01	Uranium-235	0.296 ± 0.22	Filtered	ES
RD-15	Primary	05/10/01	Uranium-238	4.59 ± 0.82	Filtered	ES
RD-15	Primary	03/06/02	Uranium-233/234	3.07 ± 1.00	Filtered	DL
RD-15	Primary	03/06/02	Uranium-235	0.30 ± 1.00	Filtered	DL
RD-15	Primary	03/06/02	Uranium-238	2.84 ± 1.00	Filtered	DL
RD-17	Primary	02/08/99	Thorium-228	0.018 ± 0.048	Filtered	TN
RD-17	Primary	02/08/99	Thorium-230	0.072 ± 0.060	Filtered	TN
RD-17	Primary	02/08/99	Thorium-232	0.012 ± 0.024	Filtered	TN
RD-17	Primary	02/08/99	Uranium-233/234	1.56 ± 0.16	Filtered	TN
RD-17	Primary	02/08/99	Uranium-235	0.103 ± 0.043	Filtered	TN
RD-17	Primary	02/08/99	Uranium-238	1.19 ± 0.14	Filtered	TN
RD-18	Primary	03/17/93	Radium-226	4.0 ± 2.4	Filtered	CEP
RD-18	Primary	03/17/93	Radium-228	<1	Filtered	CEP
RD-18	Primary	06/08/93	Radium-226	10.8 ± 3.8	Filtered	CEP
RD-18	Primary	06/08/93	Radium-228	<1	Filtered	CEP
RD-18	Primary	08/09/93	Radium-226	<0.6	Filtered	CEP
RD-18	Primary	11/04/93	Radium-226	0.84 ± 0.27	Filtered	LAS
RD-19	Primary	03/08/93	Uranium-234	12.8 ± 2.8	Filtered	CEP
RD-19	Primary	03/08/93	Uranium-235	0.51 ± 0.20	Filtered	CEP
RD-19	Primary	03/08/93	Uranium-238	16.3 ± 3.2	Filtered	CEP
RD-19	Primary	02/06/96	Uranium-233/234	3.71 ± 0.55	Filtered	LAS
RD-19	Primary	02/06/96	Uranium-235	0.32 ± 0.16	Filtered	LAS
RD-19	Primary	02/06/96	Uranium-238	3.22 ± 0.50	Filtered	LAS
RD-19	Primary	02/06/98	Uranium-233/234	13.0 ± 0.54	Filtered	TN
RD-19	Primary	02/06/98	Uranium-235	0.723 ± 0.092	Filtered	TN
RD-19	Primary	02/06/98	Uranium-238	12.4 ± 0.52	Filtered	TN
RD-19	Primary	02/06/98	Thorium-228	0.008 ± 0.031	Filtered	TN
RD-19	Primary	02/06/98	Thorium-230	<0.069	Filtered	TN

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TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
	TYPE	SAMPLED		(picocuries per liter)	HANDLING	
RD-28	Primary	02/16/00	Thorium-232	0.066 ± 0.079	Filtered	TR
RD-28	Primary	02/16/00	Uranium-233/234	8.90 ± 0.81	Filtered	TR
RD-28	Primary	02/16/00	Uranium-235	0.562 ± 0.19	Filtered	TR
RD-28	Primary	02/16/00	Uranium-238	8.70 ± 0.80	Filtered	TR
RD-28 -	Primary	02/07/01	Thorium-228	0.027 ± 0.080	Filtered	ES
RD-28	Primary	02/07/01	Thorium-230	0.053 ± 0.066	Filtered	ES
RD-28	Primary	02/07/01	Thorium-232	0.007 ± 0.013	Filtered	ES
RD-28	Primary	02/07/01	Uranium-233/234	9.00 ± 0.40	Filtered	ES
RD-28	Primary	02/07/01	Uranium-235	0.485 ± 0.073	Filtered	ES
RD-28	Primary	02/07/01	Uranium-238	8.20 ± 0.37	Filtered	ES
RD-28	Primary	02/25/02	Thorium-228	0 ± 1.00	Filtered	DL
RD-28	Primary	02/25/02	Thorium-230	0 ± 1.00	Filtered	DL
RD-28	Primary	02/25/02	Thorium-232	0 ± 1.00	Filtered	DL
RD-28	Primary	02/25/02	Uranium-233/234	4.50 ± 0.50	Filtered	DL
RD-28	Primary	02/25/02	Uranium-235	0.20 ± 0.50	Filtered	DL
RD-28	Primary	02/25/02	Uranium-238	4.50 ± 0.50	Filtered	DL
RD-29	Primary	12/08/89	Radium-226	0.844 ± 0.205	Unfiltered	UST
RD-29	Primary	12/08/89	Radium-226	0.832 ± 0.188	Filtered	UST
RD-29	Primary	12/08/89	Radium-228	1.61 ± 0.592	Unfiltered	UST
RD-29	Primary	12/08/89	Radium-228	1.17 ± 0.474	Filtered	UST
RD-29	Primary	12/08/89	Uranium-234	15.6 ± 1.61	Unfiltered	UST
RD-29	Primary	12/08/89	Uranium-235	0.626 ± 0.142	Unfiltered	UST
RD-29	Primary	12/08/89	Uranium-238	14.1 ± 1.46	Unfiltered	UST
RD-29	Primary	12/08/89	Total Uranium	22.2 ± 6.20	Unfiltered	UST
RD-29	Primary	03/27/90	Radium-226	0.636 ± 0.171	Unfiltered	UST
RD-29	Primary	03/27/90	Radium-228	0.816 ± 0.414	Unfiltered	UST
RD-29	Primary	03/27/90	Uranium-234	15.7 ± 2.49	Unfiltered	UST
RD-29	Primary	03/27/90	Uranium-235	1.39 ± 0.360	Unfiltered	UST
RD-29	Primary	03/27/90	Uranium-238	16.8 ± 2.67	Unfiltered	UST
RD-29	Primary	03/05/91	Uranium-234	9.54 ± 0.971	Filtered	IT
RD-29	Primary	03/05/91	Uranium-235	0.324 ± 0.0748	Filtered	iT
RD-29	Primary	03/05/91	Uranium-238	9.21 ± 0.940	Filtered	IT
RD-29	Primary	03/03/92	Uranium-234	1.32 ± 0.57	Unfiltered	CEP

See last page of Table E-4 for footnotes and explanations. Haley & Aldrich

TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
WELL IDENTIFIER	TYPE	SAMPLED	13010FE	(picocuries per liter)	HANDLING	LABORATORY
RD-34A	Primary	06/22/93	Uranium-238	1.3 ± 0.2	Filtered	CEP
RD-34A	Primary	06/22/93	Thorium-228	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	06/22/93	Thorium-230	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	06/22/93	Thorium-232	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	08/24/93	Uranium-234	4.6 ± 0.6	Filtered	CEP
RD-34A	Primary	08/24/93	Uranium-235	0.2 ± 0.1	Filtered	CEP
RD-34A	Primary	08/24/93	Uranium-238	4.9 ± 0.7	Filtered	CEP
RD-34A	Primary	08/24/93	Thorium-228	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	08/24/93	Thorium-230	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	08/24/93	Thorium-232	0.00 ± 0.05	Filtered	CEP
RD-34A	Primary	08/24/93	Uranium-233/234	10.3 ± 1.6	Filtered	LAS
RD-34A	Primary	08/24/93	Uranium-235	0.78 ± 0.39	Filtered	LAS
RD-34A	Primary	08/24/93	Uranium-238	11.7 ± 1.8	Filtered	LAS
RD-34A	Primary	08/24/93	Thorium-228	-0.12 ± 0.22	Filtered	LAS
RD-34A	Primary	11/18/93	Thorium-230	0.76 ± 0.37	Filtered	LAS
RD-34A	Primary	11/18/93	Thorium-232	0.33 ± 0.25	Filtered	LAS
RD-34A	Primary	05/09/94	Strontium-90	-0.28 ± 0.63	Filtered	LAS
RD-34A	Primary	11/09/94	Technetium-99	1.3 ± 1.1	Unfiltered	LAS
RD-34A	Primary	05/27/98	Uranium-233/234	9.60 ± 0.89	Filtered	TN
RD-34A	Primary	05/27/98	Uranium-235	0.57 ± 0.18	Filtered	TN
RD-34A	Primary	05/27/98	Uranium-238	10.5 ± 0.95	Filtered	TN
RD-34A	Primary	05/27/98	Thorium-228	<0.04	Filtered	TN
RD-34A	Primary	05/27/98	Thorium-230	<0.08	Filtered	TN
RD-34A	Primary	05/27/98	Thorium-232	0.01 ± 0.02	Filtered	TN
RD-34A	Primary	05/09/01	Thorium-228	0.050 ± 0.17	Filtered	ES
RD-34A	Primary	05/09/01	Thorium-230	0.050 ± 0.13	Filtered	ES
RD-34A	Primary	05/09/01	Thorium-232	0.034 ± 0.034	Filtered	ES
RD-34A	Primary	05/09/01	Uranium-233/234	10.0 ± 0.54	Filtered	ES
RD-34A	Primary	05/09/01	Uranium-235	0.523 ± 0.096	Filtered	ES
RD-34A	Primary	05/09/01	Uranium-238	10.6 ± 0.56	Filtered	ES
RD-34B	Primary	05/10/94	Strontium-90	-0.09 ± 0.66	Filtered	LAS
RD-34C	Primary	05/09/94	Strontium-90	-0.47 ± 0.6	Filtered	LAS

TABLE E-4 RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES Boeing Santa Susana Field Laboratory Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
WELL IDENTIFICAT.	TYPE	SAMPLED	1501012	(picocuries per liter)	HANDLING	LABORATORT
RD-54A	Primary	10/26/01	Uranium-235	0.22 ± 0.04	Filtered	DL
RD-54A	Primary	10/26/01	Uranium-238	7.34 ± 0.21	Filtered	TR
RD-54A	Primary	02/27/02	Thorium-228	0 ± 1.00	Filtered	DL
RD-54A	Primary	02/27/02	Thorium-230	0 ± 1.00	Filtered	DL
RD-54A	Primary	02/27/02	Thorium-232	0 ± 1.00	Filtered	DL
RD-54A	Primary	02/27/02	Uranium-233/234	4.10 ± 0.19	Filtered	DL
RD-54A	Primary	02/27/02	Uranium-235	0.10 ± 0.10	Filtered	DL
RD-54A	Primary	02/27/02	Uranium-238	4.00 ± 0.17	Filtered	DL
RD-54B	Primary	02/08/99	Thorium-228	<0.084	Filtered	TN
RD-54B	Primary	02/08/99	Thorium-230	-0.013 ± 0.050	Filtered	TN
RD-54B	Primary	02/08/99	Thorium-232	-0.006 ± 0.013	Filtered	TN
RD-54B	Primary	02/08/99	Uranium-233/234	0.062 ± 0.048	Filtered	TN
RD-54B	Primary	02/08/99	Uranium-235	0.012 ± 0.012	Fiftered	TN
RD-54B	Primary	02/08/99	Uranium-238	0.048 ± 0.029	Filtered	TN
RD-54C	Primary	02/09/99	Thorium-228	0.013 ± 0.038	Filtered	TN
RD-54C	Primary	02/09/99 **	Thorium-230	0.064 ± 0.064	Filtered	TN
RD-54C	Primary	02/09/99	Thorium-232	0.006 ± 0.013	Filtered	TN
RD-54C	Primary	02/09/99	Uranium-233/234	0 ± 0.036	Filtered	TN
RD-54C	Primary	02/09/99	Uranium-235	0.011 ± 0.022	Filtered	TN
RD-54C	Primary	02/09/99	Uranium-238	0.018 ± 0.018	Filtered	TN
RD-56A	Primary	05/10/94	Uranium-233/234	2.61 ± 0.59	Filtered	LAS
RD-56A	Primary	05/10/94	Uranium-235	0.34 ± 0.21	Filtered	LAS
RD-56A	Primary	05/10/94	Uranium-238	2.08 ± 0.53	Filtered	LAS
RD-56A	Primary	05/10/94	Thorium-228	0.035 ± 0.059	Filtered	LAS
RD-56A	Primary	05/10/94	Thorium-230	0.005 ± 0.037	Filtered	LAS
RD-56A	Primary	05/10/94	Thorium-232	0.024 ± 0.022	Filtered	LAS
RD-56A	Primary	05/10/94	Strontium-90	-0.08 ± 0.62	Filtered	LAS
RD-57	Primary	05/10/94	Uranium-233/234	1.2 ± 0.33	Filtered	LAS
RD-57	Primary	05/10/94	Uranium-235	0.3 ± 0.16	Filtered	LAS
RD-57	Primary	05/10/94	Uranium-238	0.93 ± 0.29	Filtered	LAS
RD-57	Primary	05/10/94	Thorium-228	0.014 ± 0.062	Filtered	LAS
RD-57	Primary	05/10/94	Thorium-230	0.019 ± 0.04	Filtered .	LAS
RD-57	Primary	05/10/94	Thorium-232	0.008 ± 0.016	Filtered	LAS

TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE	DATE	ISOTOPE	CONCENTRATION	SAMPLE	LABORATORY
	TYPE	SAMPLED		(picocuries per liter)	HANDLING	
HAR-07	Primary	03/15/93	Radium-226	<0.6	Filtered	CEP
HAR-07	Primary	03/15/93	Radium-228	<1	Filtered	CEP
HAR-07	Primary	06/09/93	Radium-226	9.0 ± 3.5	Filtered	CEP
HAR-07	Reanalysis	06/09/93	Radium-226	<0.6	Filtered	CEP
HAR-07	Reanalysis	06/09/93	Radium-228	2 ± 1	Filtered	CEP
HAR-07	Primary	08/09/93	Radium-226	<0.6	Filtered	CEP
HAR-07	Primary	11/04/93	Radium-226	0.33 ± 0.15	Filtered	LAS
HAR-16	Primary	03/15/93	Radium-226	<0.6	Filtered	CEP
HAR-16	Primary	03/15/93	Radium-228	<1	Filtered	CEP
HAR-16	Primary	06/09/93	Radium-226	<0.6	Filtered	CEP
HAR-16	Primary	08/09/93	Radium-226	461 ± 500	Filtered	CEP
HAR-16	Primary	08/09/93	Radium-228	<1	Filtered	CEP
HAR-16	Reanalysis	08/09/93	Radium-226	<0.6	Filtered	CEP
HAR-16	Primary	11/22/93	Radium-226	0.25 ± 0.16	Filtered	LAS
HAR-16	Primary	02/04/94	Radium-226	0.15 ± 0.17	Filtered	LAS
HAR-17	Primary	03/17/93	Radium-226	<0.6	Filtered	CEP
HAR-17	Primary	03/17/93	Radium-228	<1	Filtered	CEP
HAR-17	Primary	06/09/93	Radium-226	3.3 ± 1.4	Filtered	CEP
HAR-17	Primary	08/09/93	Radium-226	<0.6	Filtered	CEP
HAR-17	Primary	11/08/93	Radium-226	0.00 ± 0.10	Filtered	LAS
HAR-18	Primary	05/08/94	Uranium-233/234	12.1 ± 1.4	Filtered	LAS
HAR-18	Primary	05/08/94	Uranium-235	0.55 ± 0.27	Filtered	LAS
HAR-18	Primary	05/08/94	Uranium-238	11.6 ± 1.3	Filtered	LAS
OS-01	Primary	08/15/94	Strontium-90	-0.33 ± 0.75	Filtered	LAS
OS-02	Primary	08/15/94	Strontium-90	-0.13 ± 0.59	Filtered	LAS
OS-03	Primary	08/15/94	Strontium-90	-0.17 ± 0.63	Filtered	LAS
OS-04	Primary	08/15/94	Strontium-90	0.18 ± 0.74	Filtered	LAS
OS-08	Primary	08/15/94	Strontium-90	0.39 ± 0.67	Filtered	LAS
OS-10	Primary	08/05/94	Strontium-90	-0.48 ± 0.65	Filtered	LAS
OS-16	Primary	11/01/89	Uranium-234	2.42 ± 0.275	Filtered	UST
OS-16	Primary	11/01/89	Uranium-235	0.0840 ± 0.0292	Filtered	UST
OS-16	Primary	11/01/89	Uranium-238	2.03 ± 0.237	Filtered	UST
OS-16	Primary	11/01/89	Uranium-238	1.07 ± 0.239	Unfiltered	UST

See last page of Table E-4 for footnotes and explanations. Haley & Aldrich

TABLE E-4
RESULTS OF ANALYSES FOR SPECIFIC ISOTOPES IN GROUNDWATER SAMPLES
Boeing Santa Susana Field Laboratory
Ventura County, California

WELL IDENTIFIER	SAMPLE TYPE	DATE SAMPLED	ISOTOPE	CONCENTRATION (picocuries per liter)	SAMPLE HANDLING	LABORATORY
OS-21	Primary	11/01/89	Thorium-230	0.00359 ± 0.00509	Unfiltered	UST
OS-21	Primary	11/01/89	Thorium-230	0.0795 ± 0.0265	Filtered	UST
OS-21	Primary	11/01/89	Thorium-232	0.00 ± 0.00539	Unfiltered	UST
OS-21	Primary	11/01/89	Thorium-232	0.0659 ± 0.0247	Filtered	UST

APPENDIX F

CONSTITUENTS OF CONCERN CONCENTRATION VERSUS TIME PLOTS



APPENDIX F

CONSTITUENS OF CONCERN CONCENTRATION VERSUS TIME PLOTS

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1,1-Dichloroethene (1,1-DCE)	F-35	through	F-51
1,1-Dichloroethane (1,1-DCA)	F-52	through	F-68
1,2-Dichloroethane (1,2-DCA)	F-69	through	F-85
1,4-Dioxane	F-86	through	F-102
Benzene	F-103	through	F-119
Carbon Tetrachloride	F-120	through	F-136
Chloroform	F-137	through	F-153
cis-1,2-Dichloroethene (cis-1,2-DCE)	F-154	through	F-170
Ethylbenzene	F-171	through	F-187
Fluoride	F-188	through	F-202
Methylene chloride	F-203	through	F-219
Nitrate as NO ₃	F-220	through	F-233
Nitrobenzene	F-234	through	F-248
N-Nitrosodimethylamine (NDMA)	F-249	through	F-263
Perchlorate	F-264	through	F-280
Tetrachloroethene (PCE)	F-281	through	F-297
Toluene	F-298	through	F-314
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UNSCANNABLE MEDIA

To use the unscannable media document(s), contact the Superfund Records Center.

APPENDIX G

PERMITTED GROUNDWATER REMEDIATION SYSTEMS



APPENDIX G

PERMITTED GROUNDWATER REMEDIATION SYSTEMS

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i



NPDES PERMIT CA0001309 OUTFALL - 002, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

PARAMETER	UNITS	EFFLUENT LIMITS A=DAILY MAX. B=MONTHLY AVG. (A / B)	17-Dec-02
BOD5 20C	mg/L	30 / 20	2.6
Chloride	mg/L	150 / -	32
Conductivity	umhos/cm		450
Detergents (As MBAS)	mg/L	0.5 / -	<0.1
Fluoride	mg/L	1.6 / -	0.51
Nitrite And Nitrate (As Nitrogen)	mg/L	8/-	1.2
Oil And Grease	mg/L	15 / 10	<5
Perchlorate	ug/L	* * =	. <4
pH	pH UNITS	6 TO 9	7.8
Rainfall	INCHES		1.28
Settleable Solids	ml/L	0.3 / 0.1	<0.1
Sulfate	mg/L	300 / -	67
Temperature	DEG. F	NTE > 100	50.9
Total Cyanide	ug/L	22 / 5.2	<4.2
Total Dissolved Solids	-	950 / -	300
Total Hardness (CaCO3)	mg/L	9507 -	130
• •	mg/L		5200
Total Organic Carbon	ug/L		5200 <0.1
Total Residual Chlorine	mg/L	0.1 / -	
Total Suspended Solids	mg/L	45 / 15	14
Turbidity	NTU	470.4400	46
Volume Discharged	MGD	178 MGD	0.034
RADIOACTIVITY	-0:#	45.1	0.70 +/ 0.00
Gross Alpha	pCi/L	15 / -	3.79 +/- 2.36
Gross Beta	pCi/L	50 / -	1.34 +/- 0.49
Strontium-90	pCi/L	8 / -	0.00 +/- 2.00
Total Combined Radium-226 & Radium 228 ⁽¹⁾	pCi/L	5/-	NA
Tritium	pCi/L	20,000 / -	140 +/- 124
METALS			
Antimony	ug/L	6/-	<2
Arsenic	ug/L	50 / -	2.0
Barium	mg/L	1/-	0.023
Beryllium	ug/L	4/-	<0.5
Boron	mg/L	1/-	0.10
Cadmium	ug/L	3.7 / 1	<1
Chromium	ug/L	15 / 10	<1
Copper	ug/L	17 / 11	2.6
Iron	mg/L	0.3 / -	0.04
Lead	ug/L	65 / 2.5	<1
Manganese	ug/L	50 / -	11
Mercury (Expressed As Dissolved)	ug/L	2.1 / -	<0.2
Mercury (Expressed As Total Recoverable)	ug/L	- /2	<0.2
Nickel	ug/L	100 / -	1.3
Selenium (Expressed As Total Recoverable)	ug/L	20 / 5	<2
Silver	ug/L	3.4 / -	<1
Thallium	ug/L	21 -	<1
Zinc	ug/L	110 / 100	<20

TABLE G-1
NPDES PERMIT CA0001309 OUTFALL - 002, 2002
Boeing Santa Susana Field Laboratory
Ventura County, California

PARAMETER	UNITS	EFFLUENT LIMITS A=DAILY MAX. B=MONTHLY AVG. (A / B)	17-Dec-02
Acrolein	ug/l		<50
Acrylonitrile	ug/l		<50
ACUTE TOXICITY			400
(Fathead Minnow 96hr % Survival Bioassay)	, % SURVIVAL	70% MINIMUM	100
Aldrin	ug/l		<0.1
alpha-BHC	ug/l		<0.1
Anthracene	ug/l		<10
Aroclor-1016	ug/l		· <1
Aroclor-1221	ug/l		<1
Aroclor-1232	ug/l		<1
Aroclor-1242	ug/l		<1
Aroclor-1248	ug/l		<1
Aroclor-1254	· ug/l		<1
Aroclor-1260	ug/l		<1
Benzidine	ug/l		<20
Benzo(a)anthracene	ug/l		<10
Benzo(a)pyrene	ug/l		<10
Benzo(b)fluoranthene	ug/l		<10
Benzo(g,h,l)perylene	_		<10
Benzo(k)fluoranthene	ug/l		<10
beta-BHC	ug/l		
	ug/l		<0.1
bis (2-Chloroethyl) ether	ug/l		<10
bis (2-Ethylhexyl) Phthalate	ug/l	₩ • •	<50
bis(2-Chloroethoxy) methane	ug/I		<10
bis(2-Chloroisopropyl) ether	ug/l		<10
Bromodichloromethane	ug/l		<2
Bromoform	ug/l		< 5
Bromomethane	ug/l		<5
Butylbenzylphthalate	ug/l		<20
Chlordane	ug/l		<1
Chlorobenzene	ug/l		<2
Chloroethane	ug/l		<5
Chloromethane	ug/l		<5
CHRONIC TOXICITY	TUc	1	1
(Ceriodaphnia Survival & Reproduction)		•	
Chrysene	ug/l		<10
cis-1,3-Dichloropropene	ug/l		<2
delta-BHC	· ug/l		<0.2
Dibenzo(a,h)anthracene	ug/l		<20
Dibromochloromethane	ug/l		<2
Dieldrin	ug/l		<0.1
Diethylphthalate	ug/l		<10
Dimethylphthalate	ug/l		<10
Di-n-butylphthalate	ug/l	•••	<20
Di-n-octylphthalate	ug/l		<20
Endosulfan I	ug/l		. <0.1

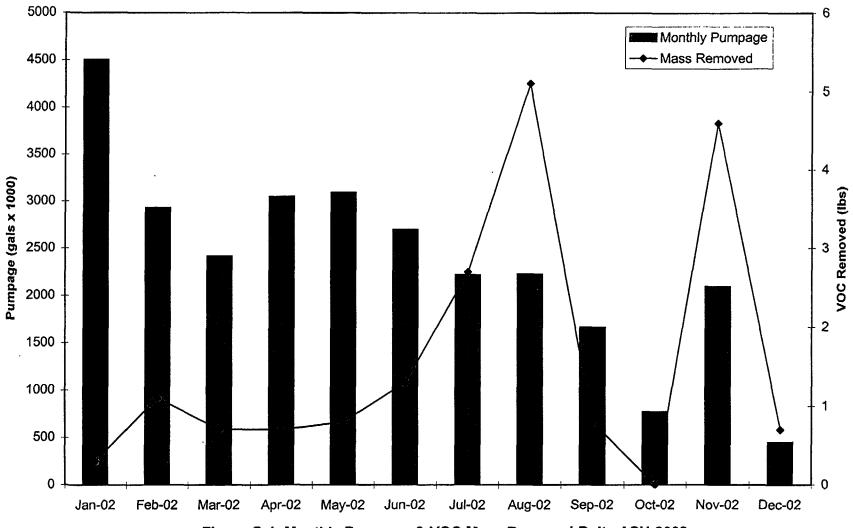


Figure G-1. Monthly Pumpage & VOC Mass Removed-Delta ASU-2002

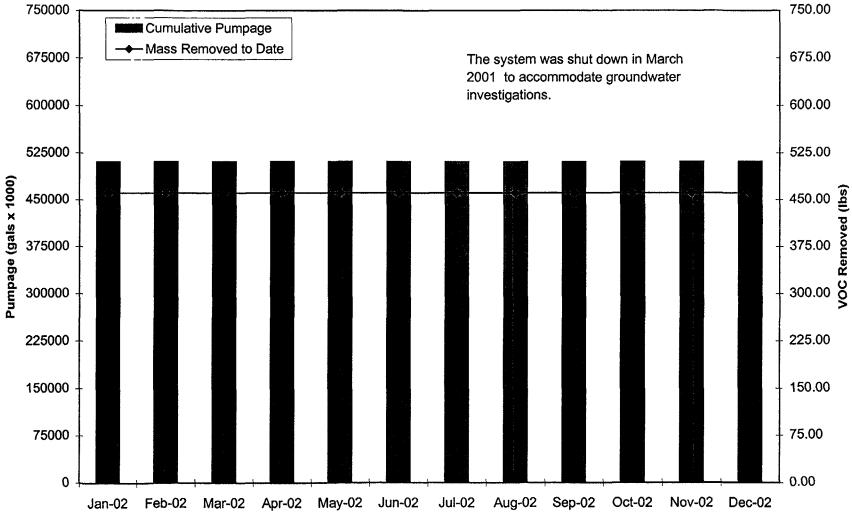


Figure G-3. Cumulative Pumpage & VOC Mass Removed to Date-Alfa ASU-2002

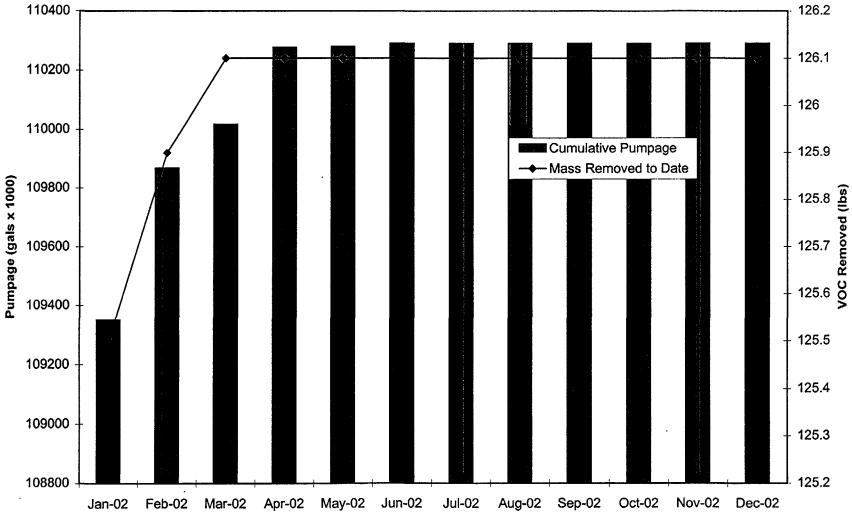


Figure G-5. Cumulative Pumpage & VOC Mass Removed to Date-Bravo ASU-2002

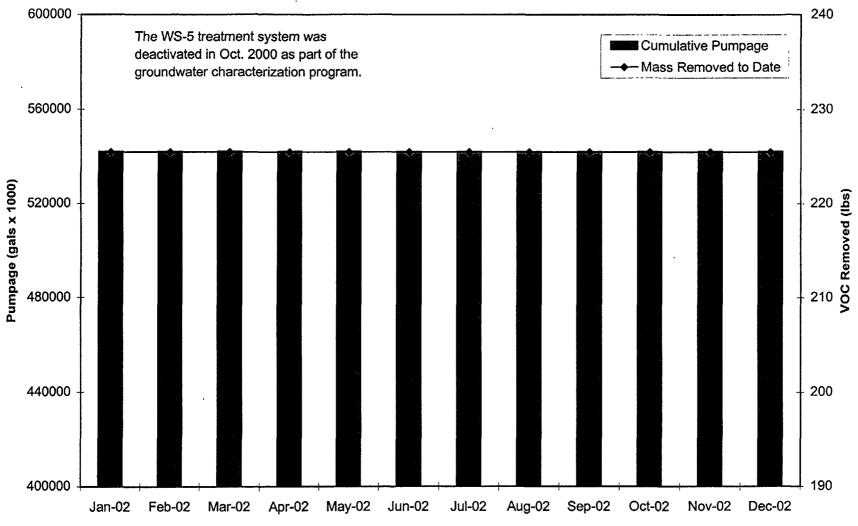


Figure G-7. Cumulative Pumpage & VOC Mass Removed to Date-WS-5 UV/H2O2-2002

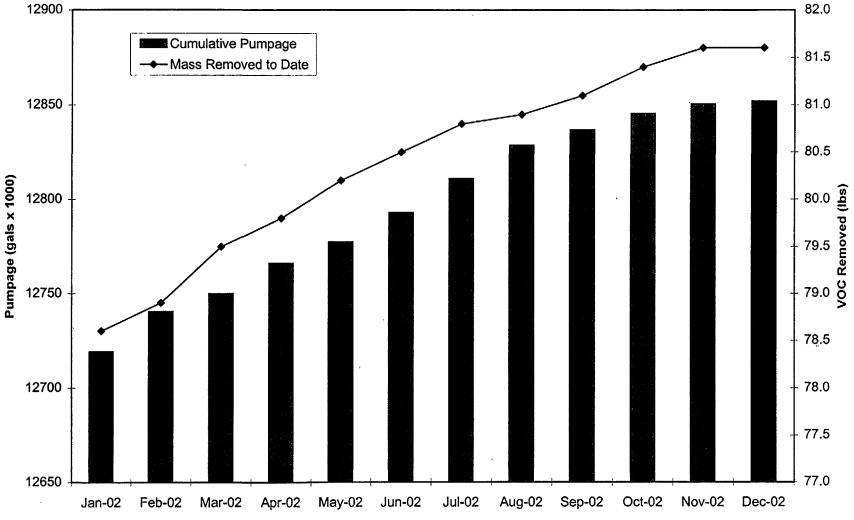


Figure G-9. Cumulative Pumpage & VOC Mass Removed to Date-STL-IV ASU-2002

APPENDIX H

DATA USEABILITY SUMMARY REPORT



APPENDIX H

DATA USEABILITY SUMMARY REPORT

Appendix IX Sampling – November 2002 Sampling Events Santa Susana Field Laboratory, Ventura County, California Analytical Laboratory: Del Mar Analytical, Irvine, CA Report # ILK0204, ILK0299, ILK0308, ILK0824, ILK0898, ILK1094, ILK1229, ILK1230, ILK1303, ILK1304

Analytical results for twenty-one (21) groundwater samples, including three (3) trip blank samples, and site specific matrix spike and matrix spike duplicate samples (MS/MSD) were reviewed to evaluate the data useability. These data were assessed in accordance with guidance from the United States Environmental Protection Agency (USEPA) National Functional Guidelines for Organic Data Review (EPA540/R-99/008, October 1999), National Functional Guidelines for Inorganic Data Review (EPA540/7-02, July 2002) and the EPA Method specific protocol criteria, where applicable. This report pertains to the groundwater samples collected by Haley & Aldrich personnel from 6 through 21 November 2002.

The following items/criteria applicable to the QA/QC data and sample analysis data listed above were reviewed:

- □ Chain of Custody Procedures
- □ Analytical Holding Time Compliance
- Method and Trip Blank Sample Analyses
- □ GC/MS and ICP-MS Instrument Performance
- □ Initial Instrument Calibration Procedures
- Continuing Calibration Verification Procedures
- □ Surrogate Compound Recoveries
- □ Laboratory Control Sample Analyses
- Matrix Spike Sample Analyses
- □ Internal Standard Compound Recoveries
- □ Sample Data Reporting Procedures
- □ Laboratory Data Qualification Procedures

Chain of Custody Procedures

External chain of custody documentation was completed by Haley & Aldrich personnel during the performance of sampling activities conducted at SSFL. The external COC documents were completed appropriately upon sample transfer to the primary analytical laboratory personnel (Del Mar Analytical, Irvine, CA). Internal COC documents were produced by Del Mar Analytical and traceable through the execution of the sample analyses within the Irvine, CA facility, and at the subcontractor laboratory facilities engaged to complete specialty analyses prescribed by the Sampling and Analysis Plan (SAP).

Del Mar performed the analysis of volatile organic compounds (VOCs) by EPA Method 8260B, organochlorine pesticides and polychlorinated biphenyls (PCBs) by EPA Method 8081/82, and



32600/05/10/M431

Blank Sample Identification	Target Compound(s) Detected in the Blank	Concentration (ug/l)	Associated Field Samples	Flag Associated Field Sample results with a "U" if less than or equal to this value (ug/L)
2110590-BLK1	Methylene Chloride	0.0673	HAR-27	0.673
VOA BLK	1,4-Dioxane	1.0	HAR-09	5.0
2110290-BLK1	Bis(2-ethylhexyl)Phthalate	19.5	HAR-21, HAR-27	195
VOA BLK	1,4-Dioxane	0.632	HAR-27	3.2

Several metals were detected in method blank samples prepared and analyzed concurrently with the project samples. Target analytes lead, barium, and zinc were detected in the method blank samples prepared concurrently with the project samples, HAR-33, RD-05B, RD-05C, RD-58C, HAR-08, and HAR-26. The laboratory qualified the reported results with "B-1" indicating that the concentration of the analyte within the sample was greater than 10 times the amount detected in the associated method blank. Since the concentration detected in the method blanks fell below 10% of the concentrations detected in the associated project samples, the contribution of the laboratory contamination is deemed to be negligible, thus, no data qualification is necessary.

Several additional metals were detected in method blank samples prepared and analyzed concurrently with the project samples, HAR-09, HAR-12, HAR-27, HAR-31, HAR-33, RD-05A, RD-08, RD-45B, RD-58A, RD-58B, RD-58C, HAR-07, HAR-08, HAR-21, WS-09, and WS-09A. These analytes included mercury, chromium, antimony, nickel, thallium and copper. These results were flagged with "B" indicating that the concentration of the analyte within the sample was less than 10 times the amount detected in the associated method blank. For these samples, the reported analyte result was flagged with a "U" indicating that the concentration of the analyte detected in the sample was most likely due to laboratory contamination and was not indicative of the field sample conditions.

GC/MS and ICP-MS Instrument Performance Checks

All performance checks of GC/MS and ICP-MS instruments used in the analysis of the project samples in accordance with EPA Methods 8260B, 8270C, 8290, and 6020 fell within method specific criteria without exception.

No corrective action is recommended.

Instrument Calibration Procedures

Instrument calibration procedures for the analysis of project samples were consistent with the guidelines prescribed by the USEPA method specific calibration protocols with the following exceptions.

During the analysis of volatile organics, the continuing calibration standards for the following target compounds exhibited a percent difference (%D) greater than the accepted EPA guidance criteria of 25%:



The reported results for sample HAR-09 should be qualified as "UJ" as an estimated detection limit. The recovery of hexachlorocyclopentadiene fell below 10% for the LCS analyzed concurrently with samples HAR-09 and RD-45B. The reported results for this analyte in these samples should be flagged "R" as rejected due to the poor recovery of the LCS. For the LCS analyzed concurrently with sample RD-45B, the recovery of target compounds 2-chlorophenol and 1,3-dichlorobenzene fell above 10% but below the method acceptance limit of 40%. The reporting limits for these analytes should be flagged as "UJ" as estimated.

The data for the remaining analytes indicate that the analyses were conducted with acceptable analytical accuracy and precision. No additional qualification of the data presented for the project samples is recommended.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Sample Analyses

Analytical precision and accuracy was evaluated based on the Matrix Spike and Matrix Spike Duplicate analyses performed on the project samples within each sample delivery group (SDG). After the addition of a known amount of each target analyte to the sample matrix, the sample was analyzed to confirm the ability of the analytical systems to identify these compounds within the sample matrix. Due to limitation of sample volume, some SDGs contained reports of MS/MSD analyses performed on sample matrices from non-project related samples. However, the analysis of these samples concurrently with the project samples provides valuable information on the accuracy of the analyses performed.

Each of the MS/MSD sample analyses performed fell within method and/or laboratory derived QA/QC criteria without exception. These data indicate that the analyses were conducted with acceptable analytical accuracy and precision for the procedures performed. No additional qualification of the data presented for the project samples is warranted.

Internal Standard (IS) Compound Recoveries

Internal Standard compounds were added to each sample prior to analysis of organic parameters by EPA Methods 8260B and 8270C to quantify the amount of the target compounds detected within each sample matrix. The calculated response of each IS compound fell within the QA/QC criteria of +100% and -50% of the corresponding CCV standard without exception. No qualification of the data is recommended.

Sample Data Reporting

Sample data were reported in summary reports containing laboratory specific data qualifiers. The reporting limit values for the dilution analyses were adjusted for the level of dilution performed. When an analysis was performed without dilution, the reporting limit was based on the most recent method detection limit study conducted by the contract laboratory. Values presented for target compounds detected at concentrations below the reporting limit but above the MDL were flagged with a "J" as estimated values. Generally, MDL studies were performed within 180 days of the project sample analyses conducted without exception. No corrective action is recommended.



32600/05/10/M431